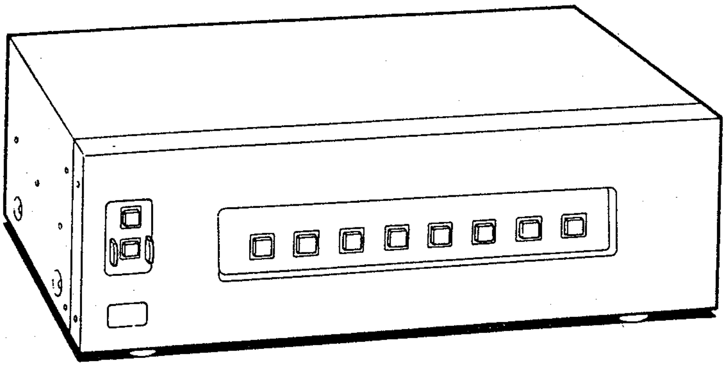
PC-1271M
RM-1270S

SERVICE MANUAL

AEP Model



Note: This Service manual for RM-1270S have been issued separately.

SPECIFICATIONS

Frequency response
RGB: 100 MHz ±3 dB
Video: 15 MHz ±3 dB
Audio: 25 kHz ±2 dB

MONITOR OUT connectors*
R: BNC type
  Red signal output, 0.7 Vp-p ±3 dB, 75 ohms impedance
G: BNC type
  Green signal output, 0.7 Vp-p ±3 dB, 75 ohms impedance
  Sync on green signal output, 1 Vp-p ±3 dB, 75 ohms impedance
B: BNC type
  Blue signal output, 0.7 Vp-p ±3 dB, 75 ohms impedance
SYNC HD: BNC type
  Horizontal sync signal/composite sync signal output, 1 Vp-p ±3 dB, 75 ohms impedance
VD: BNC type
  Vertical sync signal output, 1 Vp-p ±3 dB, 75 ohms impedance
Y/C: 4-pin DIN
  Y - 1 Vp-p ±3 dB, 75 ohms impedance
  C(NTSC) - 0.286 Vp-p ±3 dB, 75 ohms impedance
  C(PAL) - 0.3 Vp-p ±3 dB, 75 ohms impedance
VIDEO: BNC type
  Composite video signal output, 1 Vp-p ±3 dB, 75 ohms impedance
AUDIO L/R: phono jack
  Audio signal output, 436 mVrms, less than 1 kohm impedance

* For the signal outputs when mounting the IFB-1200, refer to the instruction manual of the IFB-1200.

CONTROL S connectors
IN: minijack, 5 Vp-p ±2 V, less than 47 kohms impedance
OUT: minijack, 5 Vp-p ±1 V, less than 100 ohms impedance

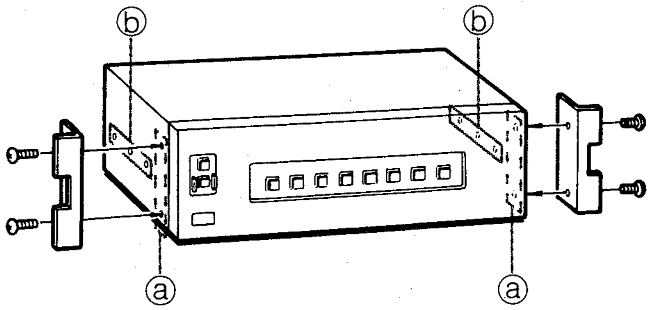
Power requirements	220 to 240 V AC, 50/60 Hz
Power consumption	60 W
Dimensions	Approx. 424 × 133 × 290 mm (w/h/d) ($16\frac{3}{4} \times 5\frac{1}{4} \times 11\frac{1}{2}$ inches)
Weight	Approx. 7.5 kg (16 lb 9 oz)
Accessories supplied	Remote commander RM-1270S (1) IEC designation R6 (size AA) batteries (2) AC power cord (1) L-shaped holder (1 set)

MICROFILM

SIGNAL INTERFACE SWITCHER

SONY®

To Mount in the EIA 19-inch Rack



Attach the supplied holders by using the mounting holes ⓐ (× 4), with the supplied screws.
Attach also the sliding rails (optional) by the mounting holes ⓑ (× 6).
Then, mount the unit in the rack.
For mounting details, refer to the instruction manual of the 19-inch rack.

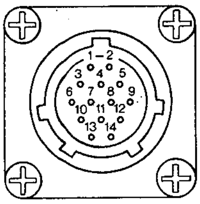
Note

Be sure to use the supplied screws to attach the holders and sliding rails to this unit.

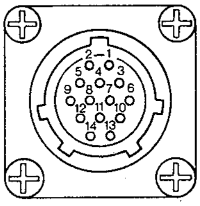
Pin assignment

REMOTE 1 connectors (14-pin)

IN (male)



OUT (female)



Pin No.	Signal	Signal level
1	GND	Ground
2	HD/C. SYNC	1 Vp-p ±3 dB, 75 ohms
3	SIRCS	5 Vp-p ±1 V
4	N.C.	No connection
5	GND (SIRCS)	Ground
6	B/C	B: 0.7 Vp-p ±3 dB, 75 ohms C (NTSC): 0.286 Vp-p ±3 dB, 75 ohms C (PAL): 0.3 Vp-p ±3 dB, 75 ohms
7	GND (B.R)	Ground
8	GND (G)	Ground
9	G/Y	G: 0.7 Vp-p (or 1 Vp-p for sync on green) ±3 dB, 75 ohms Y: 1 Vp-p ±3 dB, 75 ohms
10	RGB/Video	5 V/0 V
11	R/C. video	R: 0.7 Vp-p ±3 dB, 75 ohms Composite video: 1 Vp-p ±3 dB, 75 ohms
12	C. video/YC	5 V/0 V
13	Audio	436 mVrms, output impedance 1 kohm
14	V. sync	1 Vp-p ±3 dB, 75 ohms

Design and specifications are subject to change without notice.

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WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
GENERAL

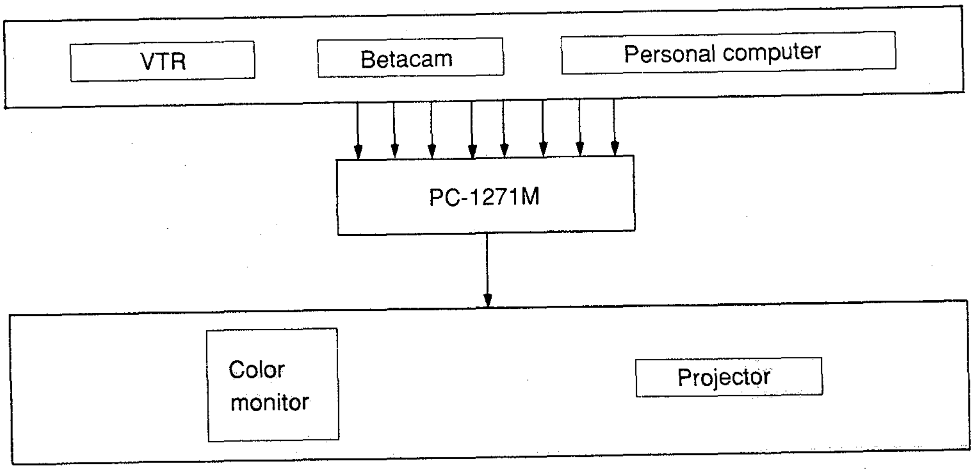
1-1. FEATURES

- **Eight pictures can be selected to send to a monitor or a projector**
  This unit can mount up to eight signal interface boards which allow the connection of up to eight VTRs or personal computers with this unit. The picture from connected equipment can be selected with the INPUT SELECT button on the front panel.

- **The input source of the projector can be selected.**
  With the supplied remote commander, the picture which is input from other equipment than this unit to the projector can be selected.

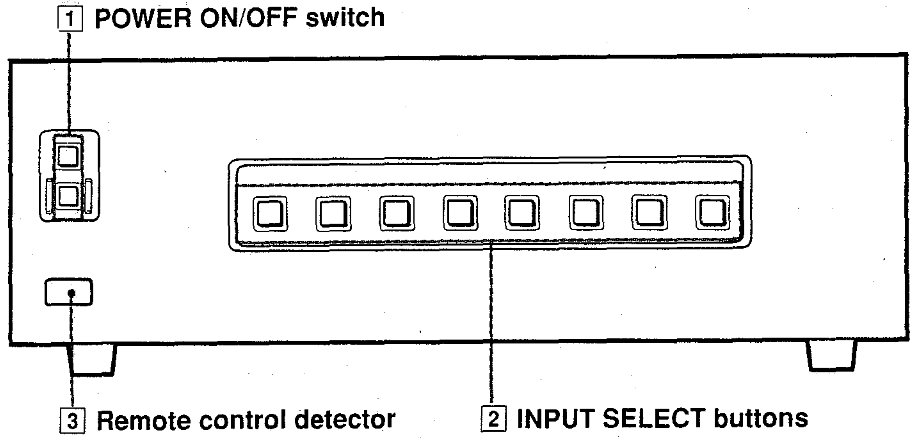
- **CONTROL S connectors**
  By connecting the CONTROL S connectors of this unit and those on the other Sony equipment, this unit can be operated through the other Sony equipment, or the other Sony equipment can be operated through this unit.

- **Built-in compensating circuit**
  You can reduce deterioration in picture resolution caused by using a long cable through use of the compensating circuit built in this unit. Activate the built-in compensating circuit by turning the REMOTE 1 MODE selector according to the length of the CCQ BRS (or SIC-M) cable being connected.

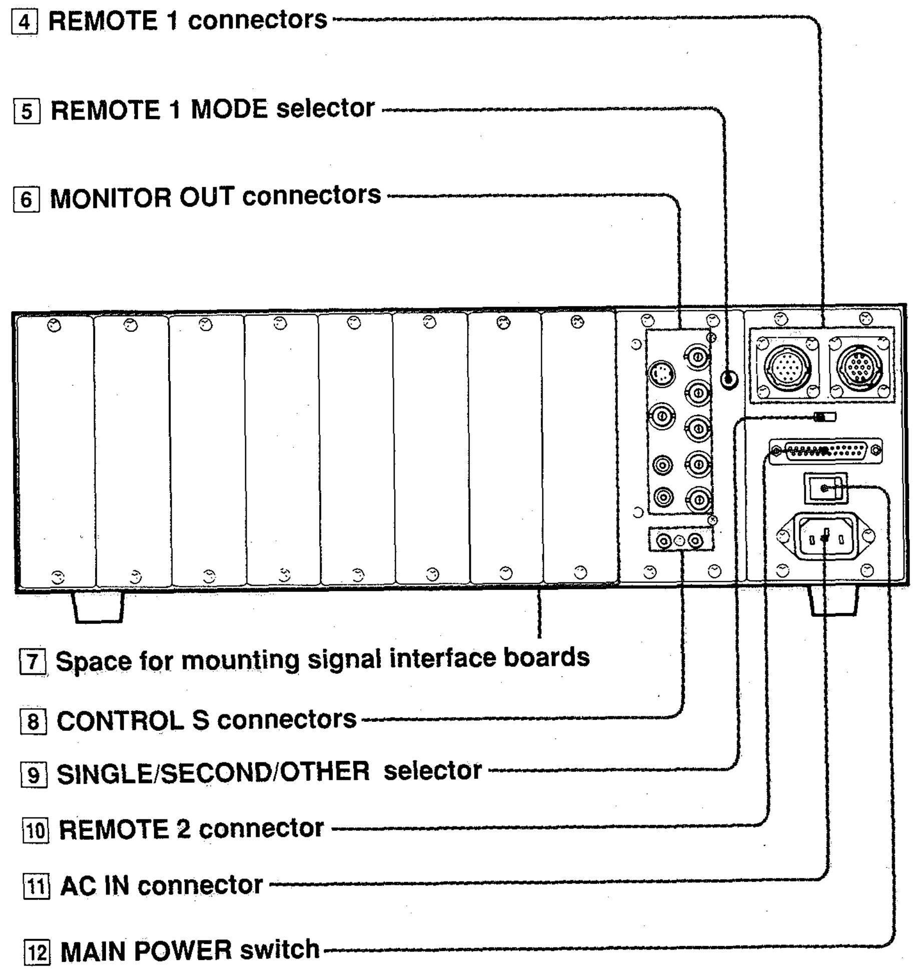


1-2. LOCATION AND FUNCTION OF PARTS

Front panel



Rear panel



[1] POWER ON/OFF switch

To turn on the power, press ON with the MAIN POWER switch on the rear panel set to ON. The ON button lights up in green.
To turn off the power, press OFF (STANDBY). The OFF button lights up in red and the unit enters the standby mode.

[2] INPUT SELECT buttons

The number of each button indicates the position of the signal interface board to which the input source is connected.
To select the equipment to be monitored, press the INPUT SELECT button which corresponds the board to which the equipment is connected. The button lights up. When the power is turned on, the button of the previously selected board lights up. Use the space around the buttons for writing down the input source.

[3] Remote control detector

Point the supplied RM-1270S remote commander here.

[4] REMOTE 1 connectors (14-pin)

IN: When connecting two switchers, connect to the REMOTE 1 OUT connector of another switcher. In this case, this switcher functions as the first one of the two.
OUT: Connect to the REMOTE connector of a projector. When connecting two switchers, connect to the REMOTE 1 IN connector of another switcher. In this case, this switcher functions as the second one of the two.

[5] REMOTE 1 MODE selector

Select the position according to the cable length connecting REMOTE 1 connector and a CCQ-BRS (or SIC-M).
1: up to 2 m cable
2: up to 10 m cable
3: up to 25 m cable
4: up to 50 m cable

[6] MONITOR OUT connector

Outputs the signal selected with the INPUT SELECT buttons. Connect to a video monitor or a projector.
For the signal output when you mount the IFB-1200 signal interface board on the unit and select its signal, see the instruction manual of the IFB-1200.
Y/C (4-pin): Outputs the luminance (Y) signal and chrominance (C) signal separately.
VIDEO (BNC type): Outputs the composite video signal.
AUDIO L/R (phono jack): Outputs the stereo audio signal. In case of the monaural audio signal, the same signal is output from both L and R jacks.
R (BNC type): Outputs the red signal.
G (BNC type): Outputs the green signal.
B (BNC type): Outputs the blue signal.
SYNC/HD (BNC type): Outputs the composite sync signal or the horizontal sync signal.
VD (BNC type): Outputs the vertical sync signal.
CONTROL S IN (mini jack): Connect to the CONTROL S OUT jack of a Sony equipment. The connected Sony equipment can be controlled on the switcher.
CONTROL S OUT (mini jack): Connect to the CONTROL S IN jack of a Sony equipment. The switcher can be controlled on the connected Sony equipment.

[7] Space for mounting signal interface boards

Up to eight signal interface boards can be mounted.

[8] CONTROL S connectors

Connect to the CONTROL S connector on the other Sony equipment. This unit can be operated through the connected equipment, or the connected equipment can be operated through this unit.

[9] SINGLE/SECOND/OTHER selector

SINGLE: Set to this position when the switcher is the first one of the two connected switchers.
SECOND: Set to this position when the switcher is the second one of the two connected switchers.
OTHER: This position is not used in normal operation.

[10] REMOTE 2 connector (25-pin)

When operating the unit on a console located in other room, connect to the console.

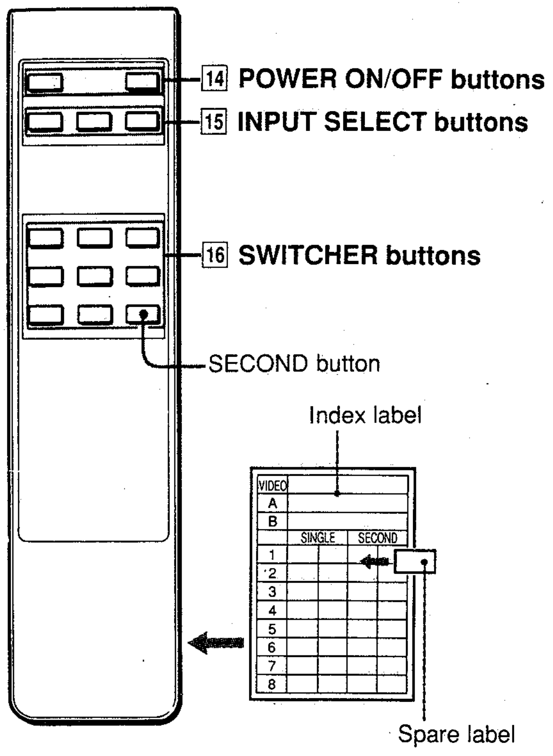
[11] AC IN connector

Connect to an AC outlet.

[12] MAIN POWER switch

Press the ON side to set the unit in the standby mode. The OFF button on the front panel lights up.
Press the OFF side to turn off the power supply.

RM-1270S Remote commander


14 POWER ON/OFF buttons
15 INPUT SELECT buttons
16 SWITCHER buttons
SECOND button
Index label
VIDEO
A
B
SINGLE
SECOND
1
2
3
4
5
6
7
8
Spare label

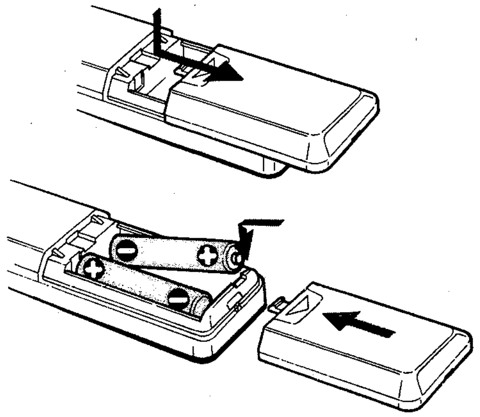
13 POWER ON/OFF buttons
To turn on the power, press ON in the standby mode (when the OFF button on the front panel lights up).

14 INPUT SELECT buttons
The input source to the projector can be selected.
VIDEO: Press this button to select the picture connected to the VIDEO IN connector of the projector.
A: Press this button to select the picture connected to the INPUT A connector of the projector.
B: Press this button to select the picture connected to the INPUT B connector of the projector.

15 SWITCHER buttons
Use these buttons when monitoring the pictures output from this switcher to a projector or a monitor.
Press a button among 1 to 8 to select the board to which the equipment to be monitored is connected.
When two switchers are connected, to select the board on the second switcher, press the number button while pressing the SECOND button, or press the number button within 2 seconds after the SECOND button is pressed.

Battery installation

Insert the supplied two size AA batteries (IEC designation R6) with the correct polarity.



Notes

- In normal operation, batteries will last up to half a year. If the unit does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the commander and the unit.
- Operable range is limited.
  The shorter the distance between the commander and the unit, the wider the angle within which the commander can control the unit.

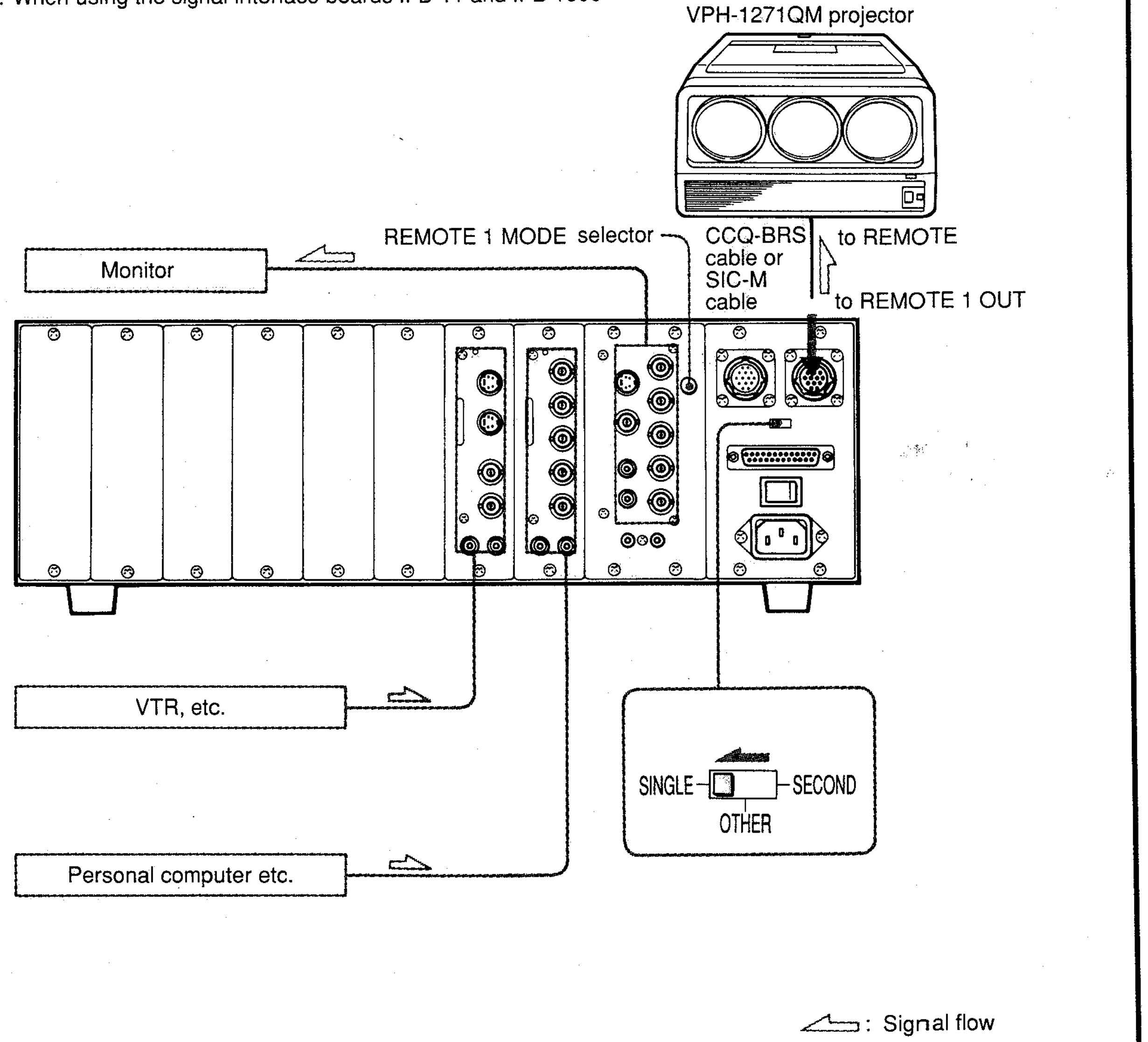
How to use the supplied labels

Attach the index label to the Remote Commander.
Write down the input source on the index label. When you change the input source, write it down on the spare label and attach the spare label to the index label.
You can see the input source number on the Commander.

1-3. CONNECTIONS

1 When Using One Switcher

Example: When using the signal interface boards IFB-11 and IFB-1000


VPH-1271QM projector
REMOTE 1 MODE selector
Monitor
CCQ-BRS cable or SIC-M cable
to REMOTE
to REMOTE 1 OUT
VTR, etc.
SINGLE
SECOND
OTHER
Personal computer etc.
: Signal flow

Notes on connection

- Turn off the power to all equipment before making any connection.
- Make firm connection. A loose connection may cause hum or noise.
- When disconnecting a cord, pull it out by grasping the plug. Never pull the cord itself.
- To prevent interference, turn off all connected equipment which is not currently in use.
- If there is noise in the picture or sound, try moving the equipment further apart.

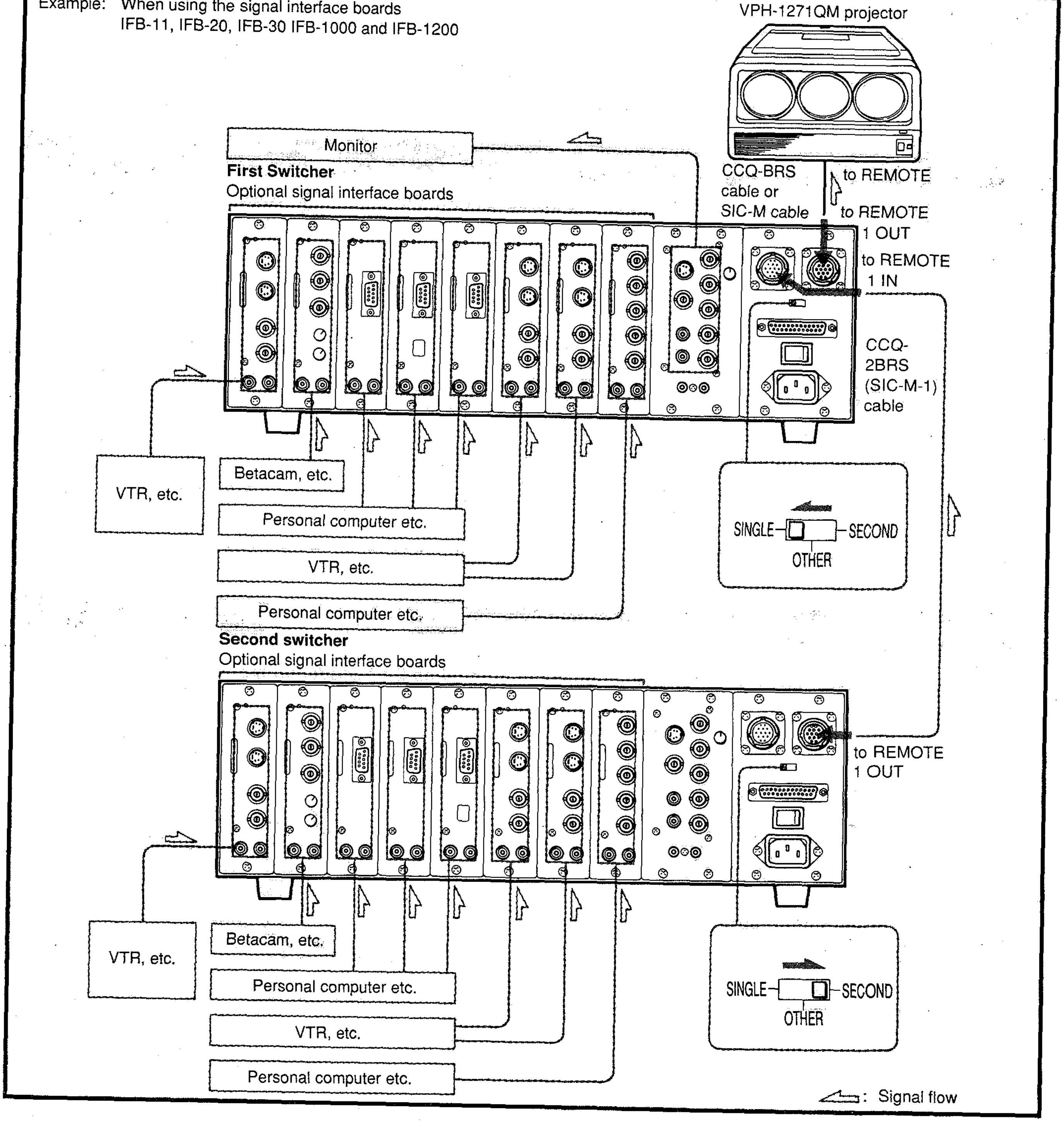
Setting the REMOTE 1 MODE selector

Turn the REMOTE 1 MODE selector on the rear panel to the appropriate position according to the length of the CCQ-BRS (SIC-M) cable connecting the REMOTE 1 connector and a projector.

Cable length	up to 2 m	up to 10 m	up to 25 m	up to 50 m
Type of cable	SIC-M1 CCQ-2BRS	SIC-M5 CCQ-5BRS CCQ-10BRS	SIC-M15 CCQ-25BRS SIC-M-25	SIC-M50 CCQ-50BRS
Position	1	2	3	4

2 When Using Two Switchers and Optional Signal Interface Boards Mounted

Example: When using the signal interface boards IFB-11, IFB-20, IFB-30 IFB-1000 and IFB-1200


VPH-1271QM projector
Monitor
First Switcher
Optional signal interface boards
CCQ-BRS cable or SIC-M cable
to REMOTE
to REMOTE 1 OUT
to REMOTE 1 IN
CCQ-2BRS (SIC-M-1) cable
VTR, etc.
Betacam, etc.
Personal computer etc.
VTR, etc.
Personal computer etc.
SINGLE
SECOND
OTHER
Second switcher
Optional signal interface boards
to REMOTE 1 OUT
VTR, etc.
Betacam, etc.
Personal computer etc.
VTR, etc.
Personal computer etc.
SINGLE
SECOND
OTHER
: Signal flow

Note

For details on the optional signal interface boards, refer to the manual of the signal interface boards.
For mounting the signal interface board, see page 10.

1-4. MOUNTING THE SIGNAL INTERFACE BOARD

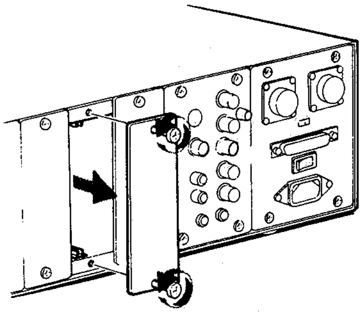
By mounting the IFB series signal interface board (not supplied) on this unit, the signals from several VTRs, personal computers or Betacam can be connected.

Precautions

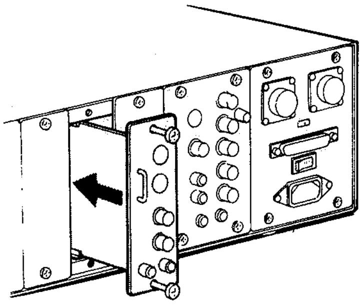
- Turn off the power before mounting or dismounting operation.
- Avoid touching the pins and electronic parts on the board when removing it from the package.
- The board consists of high-precision electronic parts. Do not drop it or bump it against other objects.
- If a problem occurs, contact an authorized Sony representative.

Mounting the Signal Interface Board

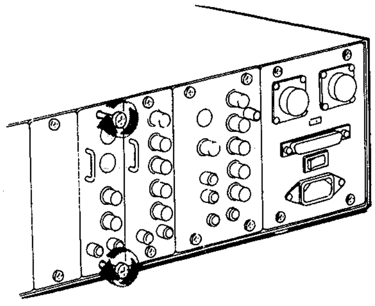
1 Loosen the screws completely and remove the panel.



2 Push in the board along the rail.

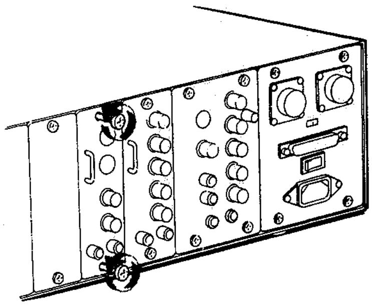


3 Secure the board with the screws.

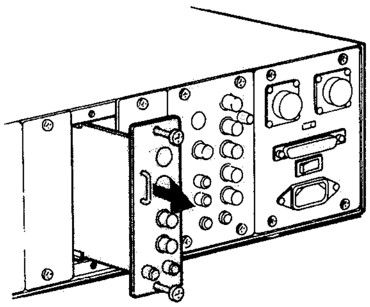


Dismounting the Signal Interface Board

1 Loosen the screws completely.



2 Hold the handle and pull out the board.



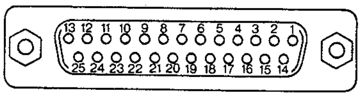
1-5. USING THE REMOTE 2 CONNECTOR

In the connection using the REMOTE 2 connector, you can turn the unit on or off, and select the input source to the projector.

In this case, set the SINGLE/SECOND/OTHER selector as shown in the illustrations in pages 8 and 9.

Pin Function of the REMOTE 2 Connector

Pin assignment (D-sub, 25-pin, female)



Pin No.	Name	Pin No.	Name
1	B1	14	B2
2	B3	15	B4
3	B5	16	B6
4	B7	17	B8
5	P1	18	P2
6	GND	19	POWER ON
7	POWER OFF	20	SEL 1
8	SEL 2	21	SEL 3
9	SEL 4	22	SEL 5
10	SEL 6	23	SEL 7
11	SEL 8	24	$\overline{\text{SELECT}}$
12	GND	25	GND
13	GND		

Each pin of the REMOTE 2 connector functions as follows:

1) By short-circuiting the B1 - B8 with GND, the signal is selected. B1 - B8 correspond to the $\boxed{1}$ - $\boxed{8}$ INPUT SELECT buttons respectively.

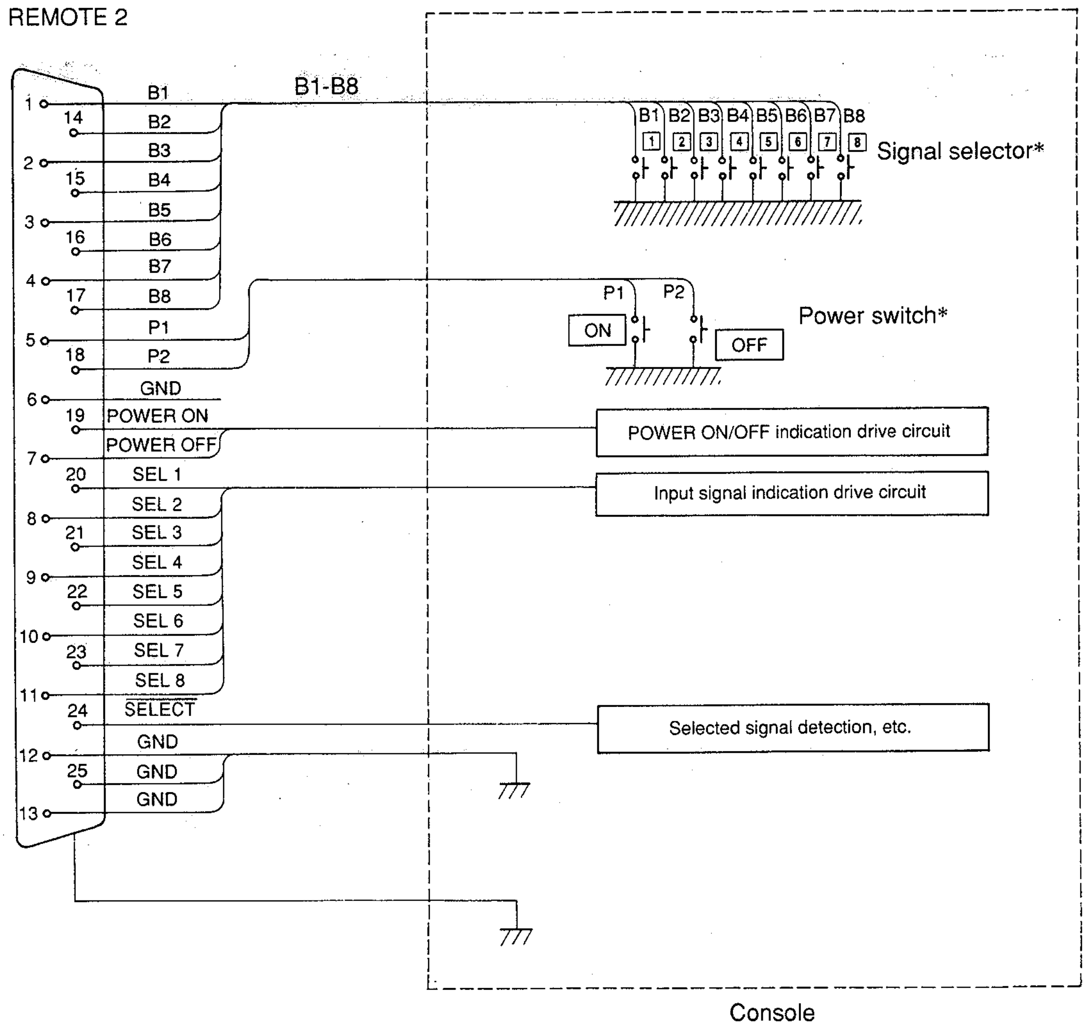
2) By short-circuiting the P1 and P2 with GND, the power is turned on or off. P1 and P2 correspond to the POWER $\boxed{\text{ON}}$ and $\boxed{\text{OFF}}$ buttons respectively.

3) SEL 1 - SEL 8 become high state (5 V) when the corresponding signal among 1 - 8 is selected. Normally they are at low state (0 V).

4) POWER ON becomes high state (5 V) when the power is turned on, and becomes low state (0 V) when the power is turned off.
POWER OFF becomes low state (0 V) when the power is turned on, and becomes high state (5 V) when the power is turned off.

5) $\overline{\text{SELECT}}$ becomes low state (0 V) when a signal among 1 - 8 is selected, and becomes high state (5 V) when no signal is selected.

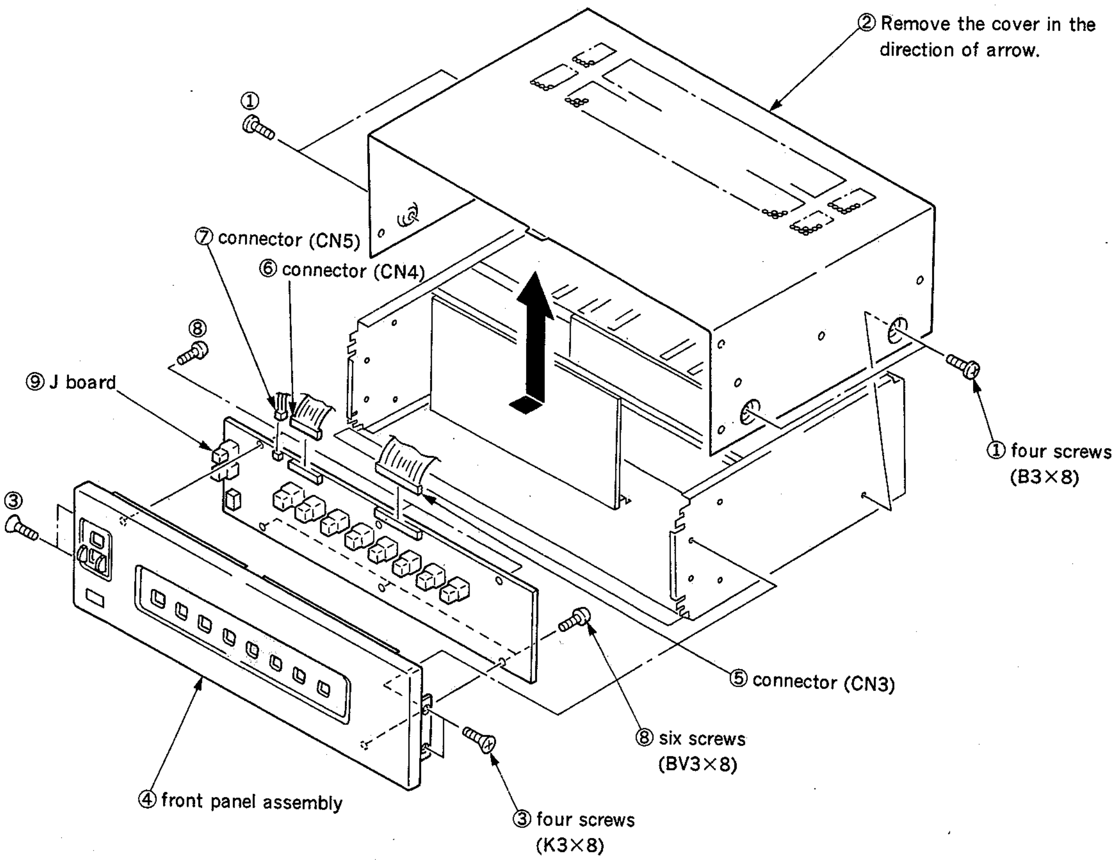
Connection Example


REMOTE 2
B1-B8
1
14
2
15
3
16
4
17
5
18
6
19
7
20
8
21
9
22
10
23
11
24
12
25
13
B1
B2
B3
B4
B5
B6
B7
B8
P1
P2
GND
POWER ON
POWER OFF
SEL 1
SEL 2
SEL 3
SEL 4
SEL 5
SEL 6
SEL 7
SEL 8
SELECT
GND
GND
GND
B1 B2 B3 B4 B5 B6 B7 B8
1 2 3 4 5 6 7 8
Signal selector*
P1
P2
ON
OFF
Power switch*
POWER ON/OFF indication drive circuit
Input signal indication drive circuit
Selected signal detection, etc.
Console

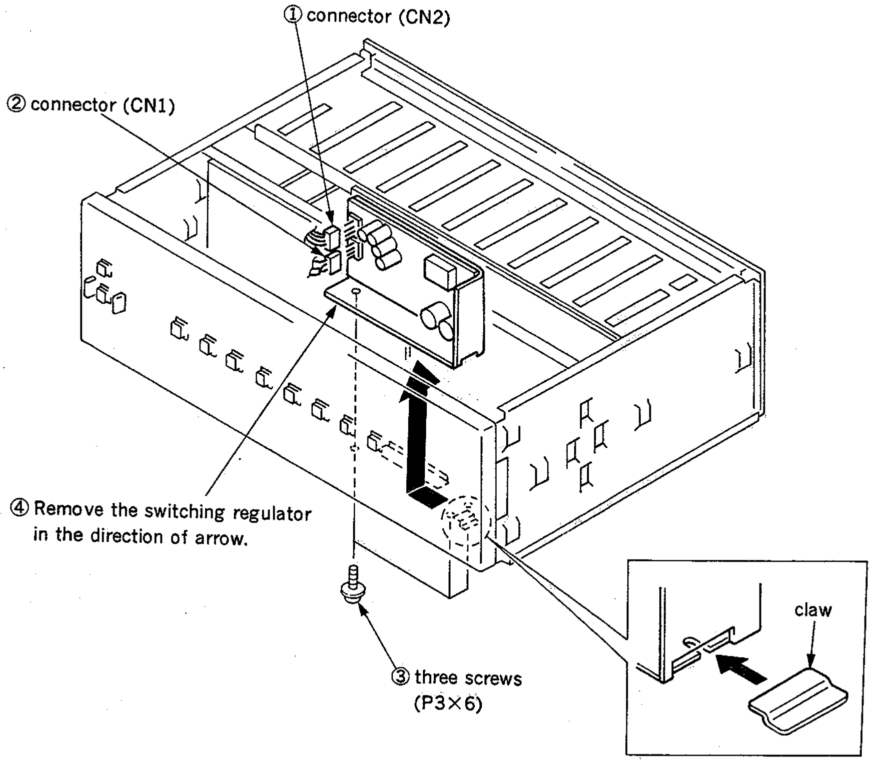
* Be sure to use a momentary switch for signal selection and power on/off.

SECTION 2
DISASSEMBLY

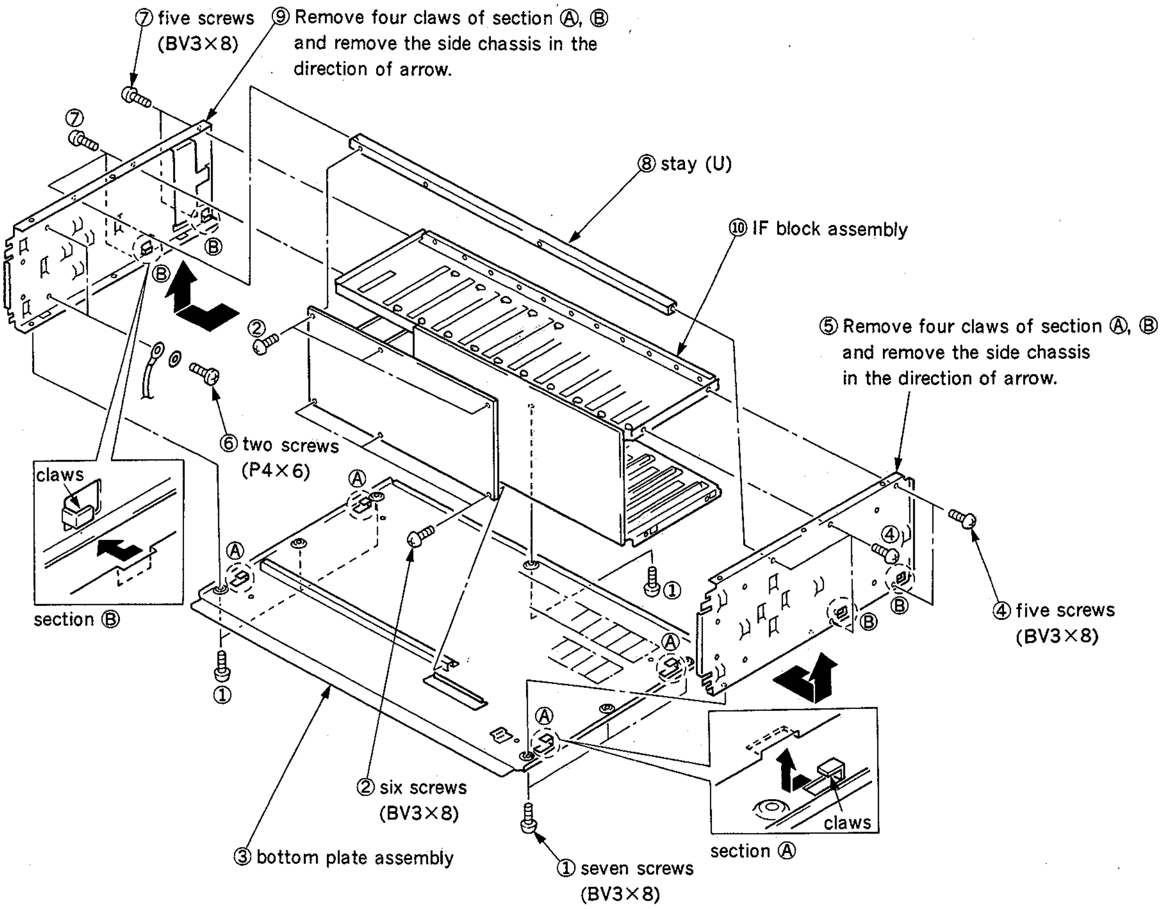
2-1. COVER, FRONT PANEL ASSEMBLY AND J BOARD REMOVAL


② Remove the cover in the direction of arrow.
①
⑦ connector (CN5)
⑥ connector (CN4)
⑧
⑨ J board
③
① four screws (B3×8)
⑤ connector (CN3)
⑧ six screws (BV3×8)
④ front panel assembly
③ four screws (K3×8)

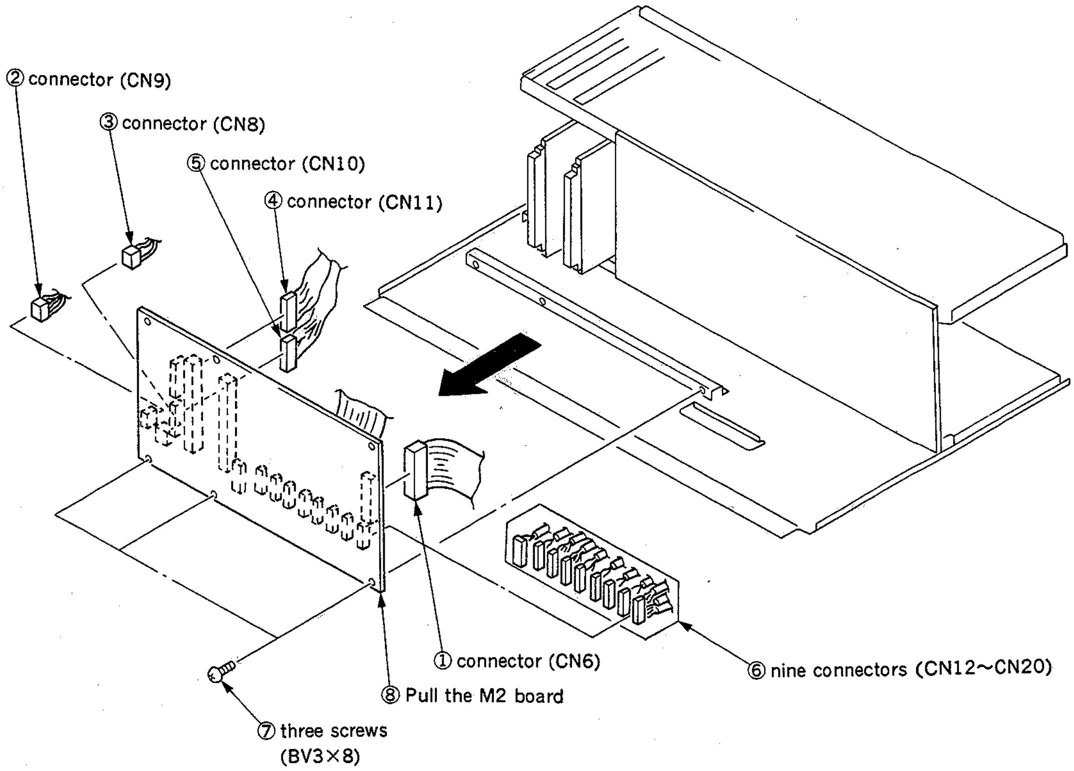
2-2. REMOVAL OF THE SWITCHING REGULATOR


① connector (CN2)
② connector (CN1)
④ Remove the switching regulator in the direction of arrow.
③ three screws (P3×6)
claw

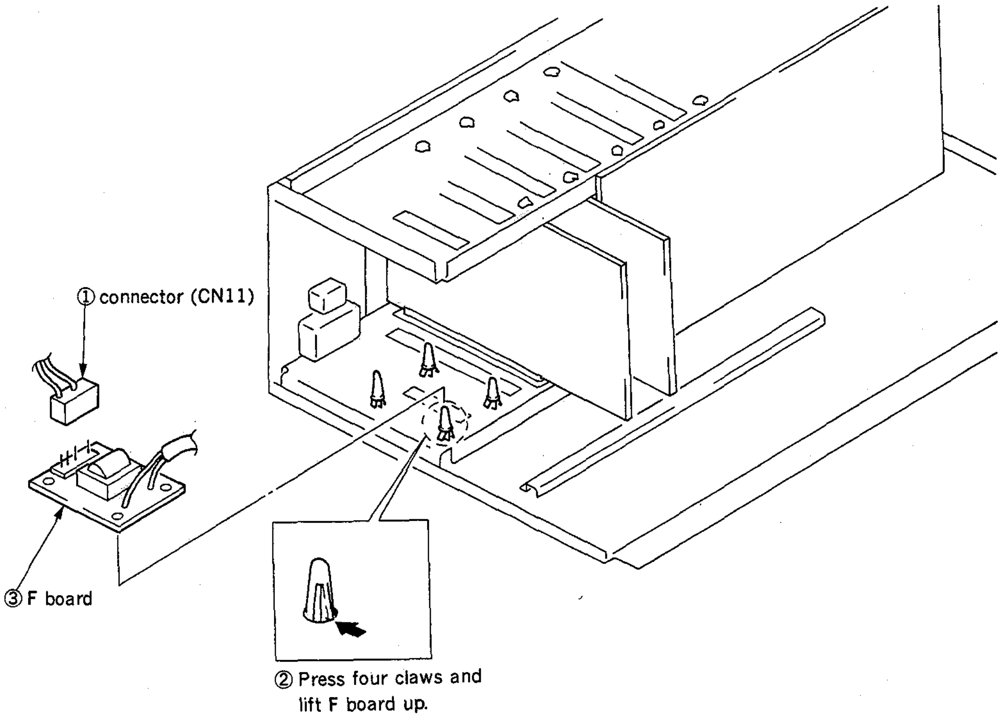
2-3. IF BLOCK REMOVAL


⑦ five screws (BV3×8)
⑨ Remove four claws of section Ⓐ, Ⓑ and remove the side chassis in the direction of arrow.
⑦
⑧ stay (U)
⑩ IF block assembly
Ⓑ
Ⓑ
②
⑤ Remove four claws of section Ⓐ, Ⓑ and remove the side chassis in the direction of arrow.
⑥ two screws (P4×6)
claws
section Ⓑ
Ⓐ
Ⓐ
①
④
①
Ⓑ
Ⓑ
④ five screws (BV3×8)
Ⓐ
Ⓐ
② six screws (BV3×8)
claws
section Ⓐ
③ bottom plate assembly
① seven screws (BV3×8)

2-4. M2 BOARD REMOVAL


② connector (CN9)
③ connector (CN8)
⑤ connector (CN10)
④ connector (CN11)
① connector (CN6)
⑧ Pull the M2 board
⑥ nine connectors (CN12~CN20)
⑦ three screws (BV3×8)

2-5. F BOARD REMOVAL

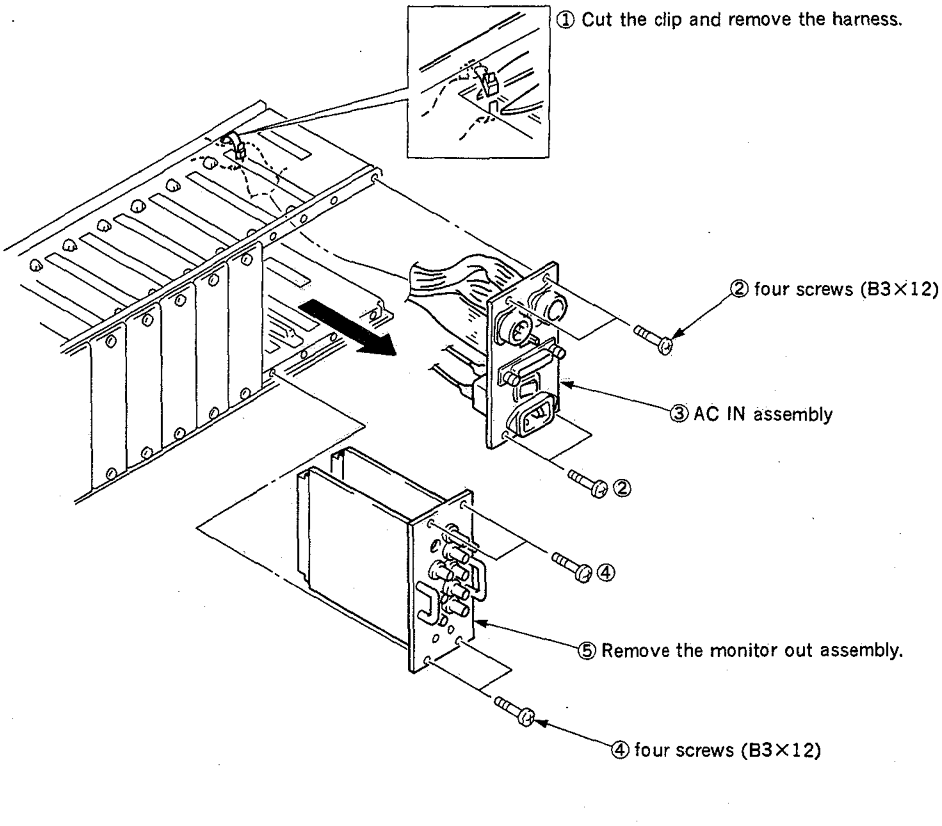


① connector (CN11)

③ F board

② Press four claws and lift F board up.

2-6. AC IN ASSEMBLY AND MONITOR OUT ASSEMBLY REMOVAL



① Cut the clip and remove the harness.

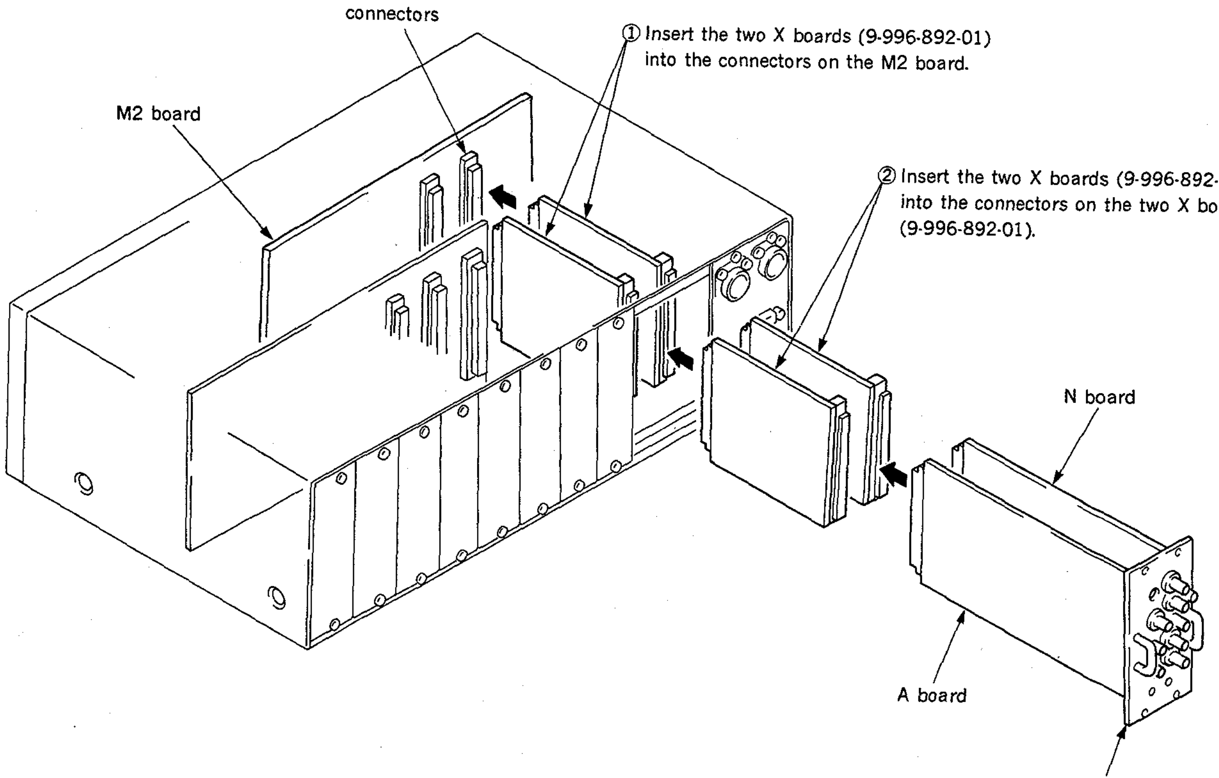
② four screws (B3×12)

③ AC IN assembly

⑤ Remove the monitor out assembly.

④ four screws (B3×12)

2-7. INSPECTION METHOD OF THE MONITOR OUT ASSEMBLY (A AND N BOARDS)

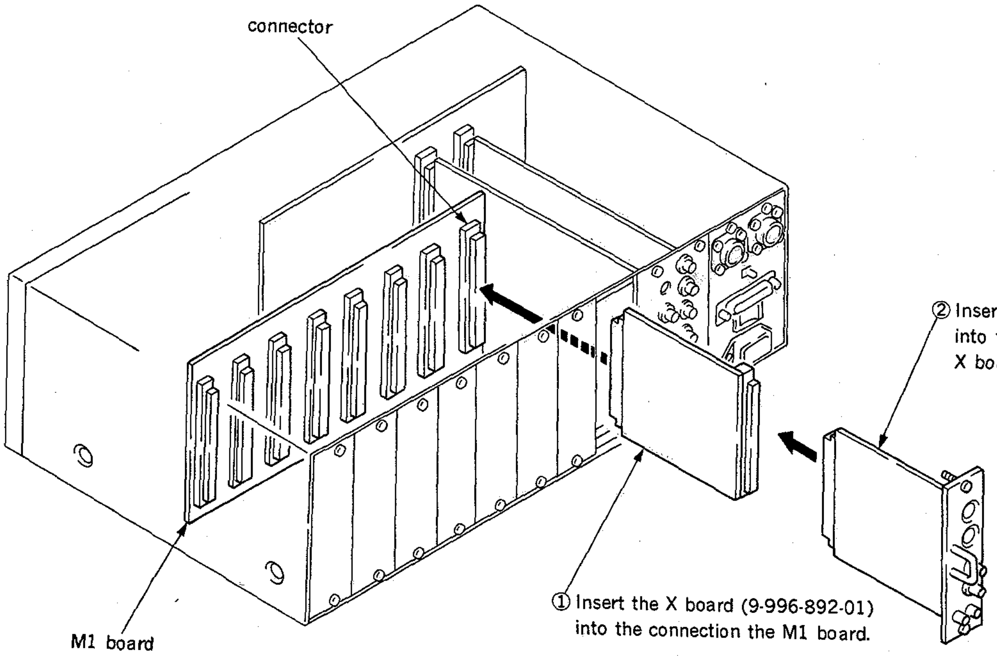


① Insert the two X boards (9-996-892-01) into the connectors on the M2 board.

② Insert the two X boards (9-996-892-01) into the connectors on the two X boards (9-996-892-01).

③ Insert the A and N boards into the connectors on the two X boards (9-996-892-01)

2-8. INSPECTION METHOD OF THE IFB SERIES BOARD



② Insert the IFB series board into the connector on the X board (9-996-892-01).

① Insert the X board (9-996-892-01) into the connection the M1 board.

SECTION 3
CIRCUIT DESCRIPTION

3-1. MOTHER 1 BOARD

☆ The MOTHER 1 BOARD (M1) consists of signal lines from each input board and a control signal line which controls input board.

3-2. MOTHER 2 BOARD

☆ The MOTHER 2 BOARD (M2) consists of a relay circuit which selects video signal from the MOTHER 1 BOARD, a power supply and its protection network.

〈Relay Control System〉

When the $\overline{\text{SEL1}}$ terminal of CN7 becomes low, No. 5 pin of IC6 is also lowered and it turns on the relays (RL22, 23 and 24) so that the signal connected to CN12 is selected and led to MONITOR OUT BOARD (A) (J9) and to REMOTE BOARD (N) (J10).

As the terminals of $\overline{\text{SEL2}}\sim\overline{\text{SEL8}}$ of CN7 is lowered, respective relays are turned on likewise.

$\overline{\text{SEL1}}$ ⇨ RL22, 23, 24
$\overline{\text{SEL2}}$ ⇨ RL19, 20, 21
$\overline{\text{SEL3}}$ ⇨ RL16, 17, 18
$\overline{\text{SEL4}}$ ⇨ RL13, 14, 15
$\overline{\text{SEL5}}$ ⇨ RL10, 11, 12
$\overline{\text{SEL6}}$ ⇨ RL7, 8, 9
$\overline{\text{SEL7}}$ ⇨ RL4, 5, 6
$\overline{\text{SEL8}}$ ⇨ RL1, 2, 3

On the other hand, when the terminal of IDTV of CN6 is lowered, No. 3 pin of IC3 is also lowered even if any one of SEL1~SEL8 is at low and RL1, 2 and 3 are turned on and a signal from CN19 (8ch) is selected.

〈Power Supply System〉

When the MAIN POWER SW at the rear panel is at ON position and AC power is supplied into the main unit, +12V is supplied to MOTHER 2 BOARD through switching power supply. The +12V line goes through a noise filter (NF1) and is supplied to MOTHER 1 BOARD (+12AB) through CN8, then supplied to SW & CONTROL BOARD (+12AB) through a resistor (R1).

Next, while the MAIN POWER SW at the rear panel is at ON position and ON/OFF SW at the front panel is turned on, POWER terminal of CN7 becomes low resulting an output of +12VA as Q5 is turned off and Q1 and Q3 are turned on. When an output of +12VA is made, outputs of +5V and +9V are made through a regulator (IC1.IC).

〈Protector〉

Excess current protection network consists of R14, Q1, Q2, Q3 and Q4. When the total current exceeds 2.7A, Q2 is turned on and base current flows to Q4 to turn on Q4. Then, Q3 and Q1 are turned off resulting no outputs of +5V, +9V and +12V.

Also, when an excess current flows into IF board inserted into the main unit, PROTECT signal from No. 17 pin of CN6 is lowered and Q3 and Q1 are turned off and similarly no outputs of +5V, +9V and +12V are made.

3-3. MONITOR OUT BOARD

☆ The MONITOR OUT BOARD consists of video buffer circuit, synchronizing signal (HD/C.SYNC,VD) output circuit and control signal IN/OUT terminal.

〈Video System〉

Input signals of R/C. VIDEO, G/Y and B/C from (21-a.c), (21-a.c), (21-a.c) of J9 are entered into video buffers of IC1, IC2 and IC3. Signals went through video buffer are output to R.G.B. terminal when J9 (17a-RGB/VIDEO) terminal is high and, when it is low, they will be output at C. VIDEO and Y/C terminal by the relays (RL4, RL5, RL6).

When (11a-1200SEL) terminal of J9 is high, R/C. VIDEO, G/Y, B/C signal is entered into IC1, IC2 and IC3 of video buffer and when it is low, R-Y/R, Y/G, B-Y/B signal is entered by the relays (RL1, RL2, RL3).

〈Synchronizing Signal System〉

When HD/C.SYNC,VD signal from remote IN via (10-c), (12-c) of J9 is entered at 1Vp-p level, it is clamped by Q1 and Q2 and entered into analog switch of IC5.

On the other hand, an input of HD/C.SYNC,VD signal from IF board, which is selected from (10-a), (12-a) of J9, is made at TTL level and entered into analog switch of IC5. When (7c-SELECT) terminal of J9 is low, synchronizing signals of (10-a) and (12-a) from IF board are selected by the analog switch of IC5 and when it is high, synchronizing signals of (10-c) and (12-c) from remote IN are selected. Selected signals are entered into IC6 where they are converted into TTL level. After the level of this synchronizing signal is shifted first, it goes through buffers of Q10 and Q11 and an output is made to HD/C.SYNC OUT(11-c), VD OUT(13-c) of J9. This synchronizing signal will be the one for remote OUT.

On the other hand, IC6 TTL level synchronizing signal of HD/C.SYNC goes through IC10 and when SW1 is off, it goes into Q4 and an output is made by buffers of Q6 and Q7. VD signal is input to Q5 through IC10 and output to Q8 and Q9 buffers.This synchronizing signal will be used for monitor OUT. Furthermore, SW2 is a selection switch for the output level of synchronizing signal which is either one of 2Vp-p or 1Vp-p.

〈Synchronizing Signal Processing〉

Synchronizing output signal from IC6 enters into IC9 and if it is a positive logic, No. 2 and No. 12 pins of IC10 become low and if it is a negative logic, they will become high.

If SW1 is in ON condition (NEG COMP), above voltage is applied to Nos. 1 and 13 pins of IC9, an output of negative logic synchronizing signal is made from Nos. 6 and 8 pins of IC10 regardless of input signal polarity.
Q3, IC7 and IC8 generate positive logic pulse which corresponds to the last transition timing. This pulse is added by IC11 to that of vertical synchronizing signal.

〈Audio System〉
When a negative pulse enters into the terminal of J9 SEL'(8-c) during channel selection or power on, No. 12 pin of IC7 becomes low just for 1 to 2 seconds so that the relay (RL7) is turned off and the output of noise etc. must not be made. An IC12 is provided as a reset IC to turn off the relay (RL7) so that no noise output is made while the power is on or the voltage of +5V is somewhat unusual.

〈Control Signal〉
When a plug is not pluged-in to IN of J105, infrared remote control can be used as the internal switch is in ON condition so that the signal from infrared receiving part goes through S-IN2(15-a) and S-IN1(14-a) to arrive at SW & CONTROL BOARD.
When a plug is pluged-in to IN of J105, a signal for light receiving part is cut off from S-IN2 as the internal switch is in OFF condition. If this is the case, control can be made by the signal through a connected plug.

3-4. REMOTE BOARD

☆ The REMOTE BOARD consists of a cable compensation circuit for REMOTE OUT and an audio output circuit.

〈Video System Cable Compensation Circuit〉
When SELECT (7-c) terminal of J10 is low, No. 3 pin of IC1 becomes high and R/C.VIDDE, G/Y, B/C signal is sent to the cable compensation circuit after Q101, Q201 and Q301. As RL1, RL2 and RL3 are turned on when SELECT (7-c) terminal becomes high, R.R/c.VIDEO,R.G/Y,R.B/C signal is selected and sent to the cable compensation circuit after Q101, Q201 and Q301.
A video signal passes through Q101 buffer enters into cable compensation equalizer. It is then compensated by the length of the cable and enters into Q2 buffer. After it is amplified by IC2 approximately 20 times, it is output and at that moment, video signal is clamped by Q103, Q104 and IC5.

〈Audio System〉
When SELECT (7-c) terminal of J10 is low, No. 5 pin of IC1 becomes high and the signals of AUDIO-L and AUDIO-R go through a relay (RL4) and an output is made at AUDIO OUT (7-a.8-a) from buffer amplifier which consists of Q3,5,7(L) and Q4,6,8(R) through T1 and T2 (for MONITOR OUT). Also, mixed signal of AUDIO L and R goes through buffer amplifier of Q1.2 and an output is made at AUDIO OUT (12-c) (for REMOTE OUT).
When SELECT (7-c) terminal of J10 becomes high, No. 5 pin of IC1 becomes low to turn on the relay (RL4) so that it enters into both L and R of signal buffer amplifier of AUDIO IN (10-c).

3-5. SW & CONTROL BOARD

☆ The SW & CONTROL BOARD has a function to output control siganls for channel selection and power on/off and consists of encoder and decoder circuits of SIRCS signal which is a basis of control signals.

〈SIRCS Signal Encoder〉
IC23 generates SIRCS signal. By making a short circuit between the terminals of F0~F7, G0, H1 and E0, an output of designated SIRCS code is made from No. 29 pin. An IC16 functions as a switch to short circuit between F0~F7 and E0 of IC23. When SW1~SW8 are pressed, IC16 is switched by the signal from IC13. An IC19 works as a switch to output power ON/OFF code.
D0 and D1 of IC23 control output code. In the condition of D0 is high and D1 is low, a code is output to use PC-1271 in Single Mode. Similarly, in order to output a code to use it in Second Mode, condition of D0 at low and D1 at high is required and to output a code to use it in Remote 2 Mode, condition of both D0 and D1 at high is called for.

〈SIRCS Signal Decoder〉
IC22 decodes SIRCS signal and generates control signals for channel selection and power on/off. SEL1~SEL8 are the terminals to identify the selected channel. When a channel selection is made, an output of corresponding terminal to that channel is lowered. POWER terminal becomes low when the power is on and becomes high when the power is off (stand by).
MODE A and MODE B are the terminals to switch SIRCS code which is identified by IC22 and the relation of their settings and conditions are shown in the followings.

MODE A : High, MODE B : Low ⇨ Single
MODE A : Low, MODE B : High ⇨ Second
MODE A : High, MODE B : High ⇨ Remote 2

〈Control Signal Output Circuit〉
CN4 is connected to REMOTE 2 terminal at the rear panel. When B1~B8 are short circuited to the GND, a terminal selected by IC10 is encoded and an identified terminal of SEL1~SEL8 of IC22 is lowered through IC11. At this instance, a pulse signal is generated by IC20 every time the channel is switched and a switch between No. 8 pin and No. 9 pin of IC19 is closed. Through this operation, an output of code is

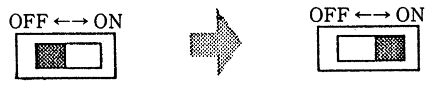
made from No. 29 pin of IC23 to show that the channel selection is made in the REMOTE 2 MODE. SEL1~SEL8 are the terminals to show selected channel and if selected, it turns to high. Power ON/OFF becomes high when PC-1271 is ON/OFF (stand by) respectively. SELECT terminal becomes low if any one of channel 1 through 8 is selected.

CN3 outputs control signals to select interface boards and power ON/OFF and MOTHER 2 BOARD. SEL1~SEL8 are the terminals to show selected channel (1~8) and if selected, it turns to low. POWER terminal turns to low when POWER is ON and SELECT terminal turns to low if any one of channel 1 through 8 is selected.

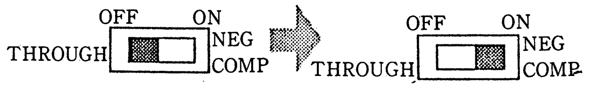
SEL' terminal is the one to detect if a channel selection is made and whenever a channel is switched, a pulse output is made.

<SIRCS Signal>

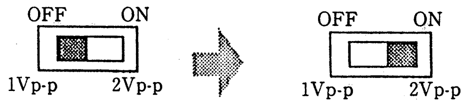
IC4 receives infrared from the commander by infrared receiver and outputs a designated code from terminal 2. Output of IC4 is made from CN3 (No. 26 pin) through the buffer. From IC3 (No. 24 pin), CONTROL S IN signal or a signal from infrared receiving part is entered. Input signal from this terminal enters into IC5 and gose through or circuit with the signal from IC23 and its result is output from No. 6 pin of IC5. This signal is entered into No. 1 pin of IC5 and an OR is taken with the input from REMOTE 2 terminal and then entered into No. 23 pin of IC22 through the analog switch of IC28. The same signal with this is output from CN3 (No. 20 pin) through IC2 and Q4 as CONTROL S OUT.

<table>
<tr><th colspan="2">FUNCTION</th><th>SET of the SWITCH</th></tr>
<tr><td>AC Linkage Power ON/OFF</td><td>Do power ON/OFF of AC power switch ON/OFF Linkage.</td><td>【SW9】 J Board (Rear side of Front Panel)
(at the factory: OFF)
(ON: AC Linkage Power ON/OFF)


OFF ←→ ON
OFF ←→ ON

</td></tr>
<tr><td>MONITOR OUT Select of SYNC OUT COMP</td><td>Make the Composit SYNC to compulsorily monitor out SYNC.
(ex. Use to the VPH-1031 connecting)</td><td>【SW1】 A Board (Rear side of MONITOR OUT Panel)
(at the factory: OFF)
(ON: Monitor out SYNC=Composite)


OFF
ON
THROUGH
NEG COMP
OFF
ON
THROUGH
NEG COMP

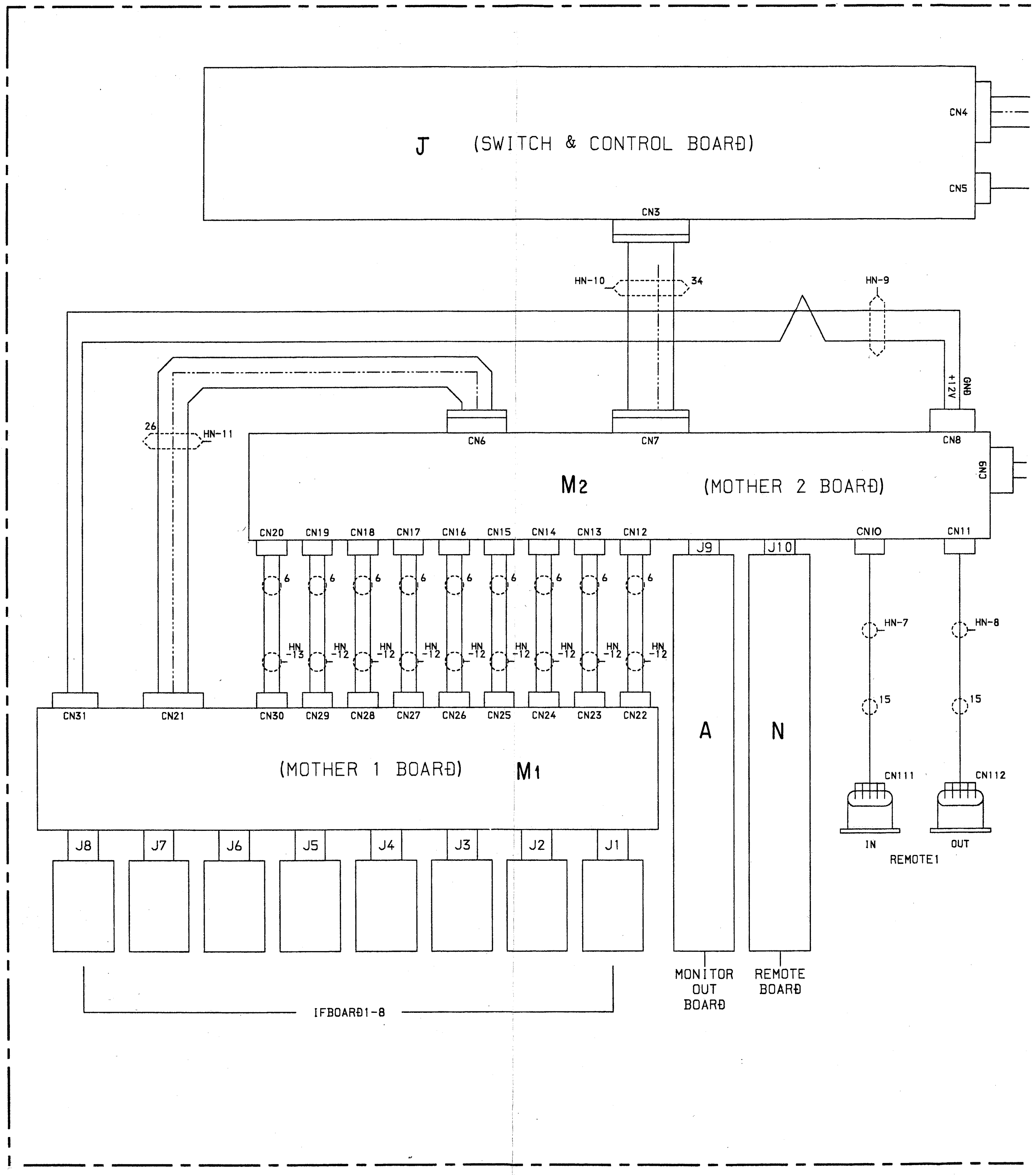
</td></tr>
<tr><td>MONITOR OUT Select of SYNC OUT Level.</td><td>Select the Monitor out SYNC level to 1Vp-p/2Vp-p.
(ex. Select to 2Vp-p at the monitor output to the GVM connecting)</td><td>【SW2】 A Board (Rear side of MONITOR OUT Panel)
(at the factory: 1Vp-p)
(change the level: 2Vp-p)


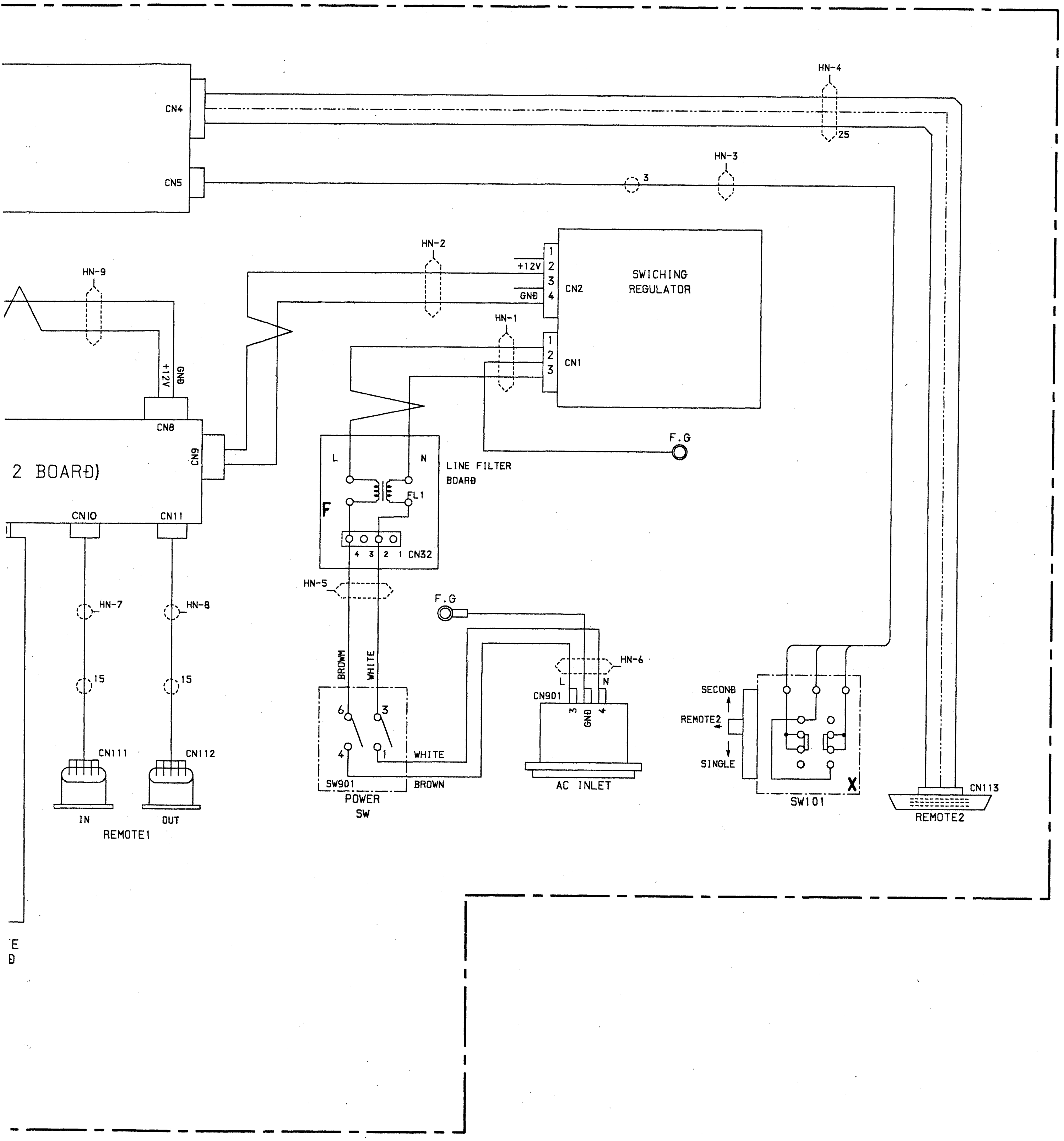
OFF
ON
1Vp-p
2Vp-p
OFF
ON
1Vp-p
2Vp-p

</td></tr>
<tr><td>Function of Cable Compensation.</td><td>REMOTE 1: Compensation to the output 70MHz of the CCQ cable.
MODE select to the lenght of the CCQ cable connecting.</td><td>【REMOTE 1 MODE】 (Rear Panel)
<table>
<tr><td>MODE</td><td>1</td><td>2</td><td>3</td><td>4</td></tr>
<tr><td>CCQ Cable length [m]</td><td>~2</td><td>~10</td><td>~25</td><td>~50</td></tr>
</table></td></tr>
</table>

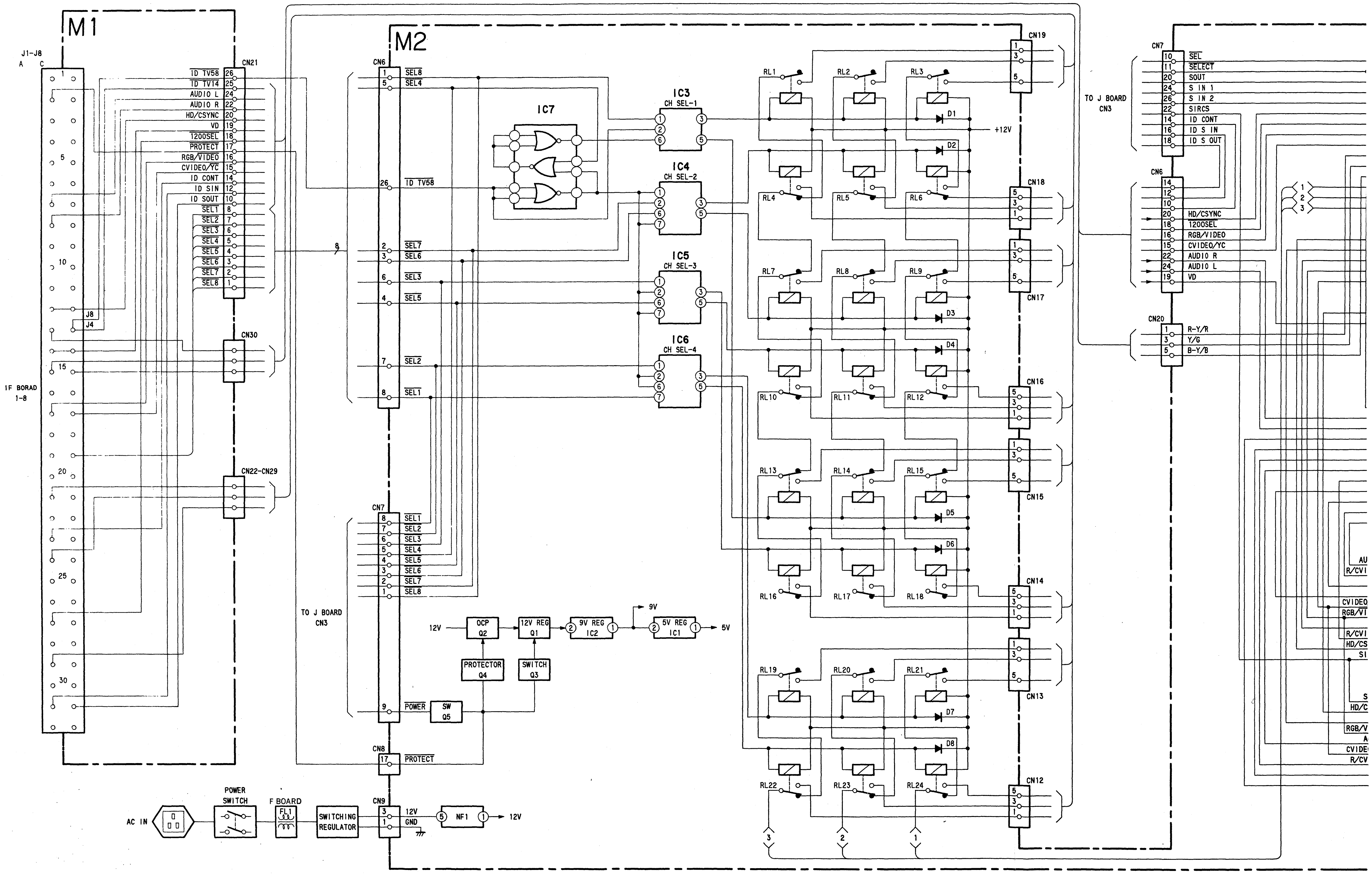
SECTION 4
DIAGRAMS

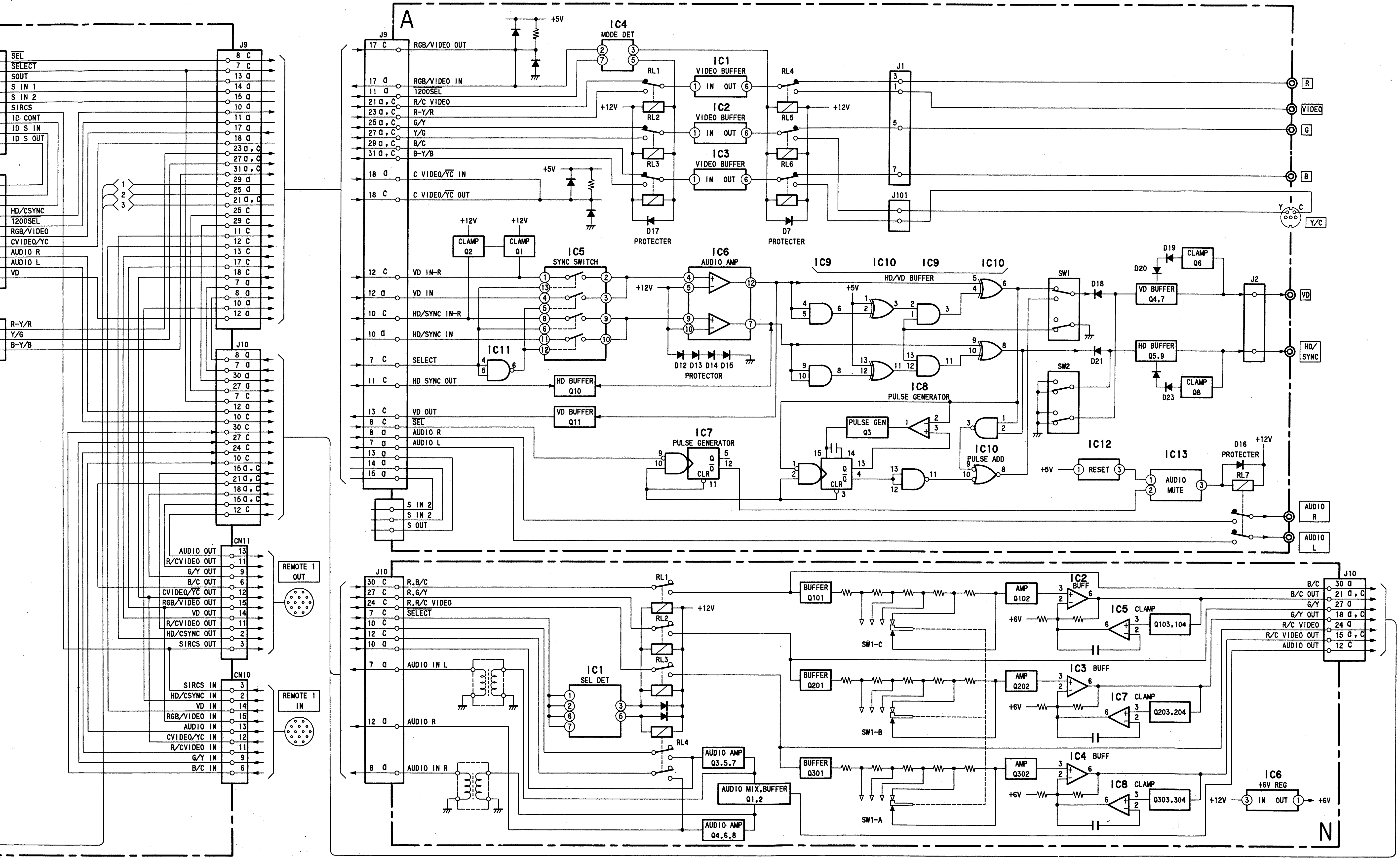
4-1. CONNECTIONS

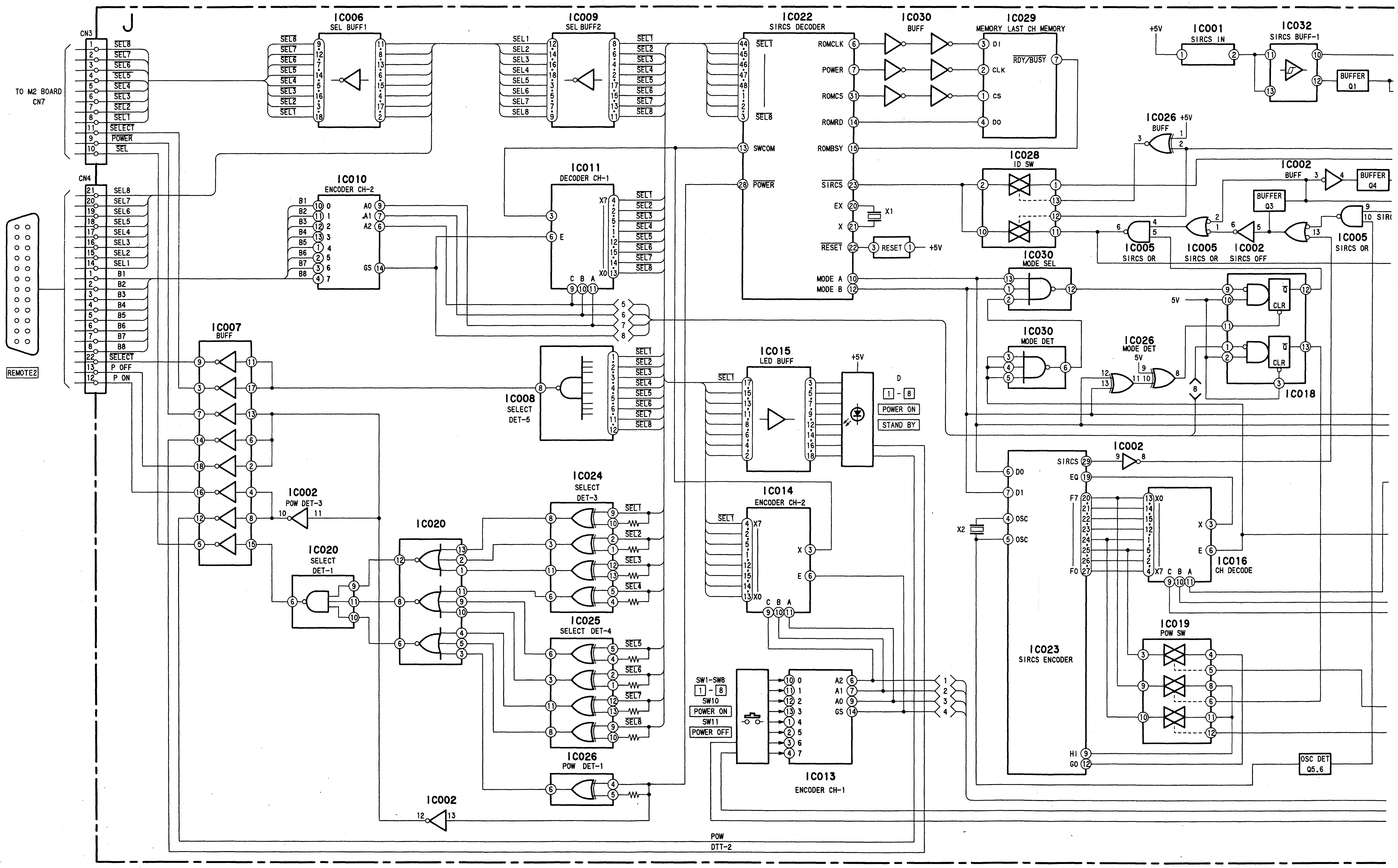

J (SWITCH & CONTROL BOARD)
CN4
CN5
CN3
HN-10
34
HN-9
+12V
GND
26
HN-11
CN6
CN7
CN8
CN9
M2 (MOTHER 2 BOARD)
CN20
CN19
CN18
CN17
CN16
CN15
CN14
CN13
CN12
CN10
CN11
J9
J10
6
HN-13
HN-12
HN-7
HN-8
15
CN31
CN21
CN30
CN29
CN28
CN27
CN26
CN25
CN24
CN23
CN22
(MOTHER 1 BOARD) M1
A
N
CN111
CN112
IN
OUT
REMOTE1
J8
J7
J6
J5
J4
J3
J2
J1
IFBOARD1-8
MONITOR OUT BOARD
REMOTE BOARD

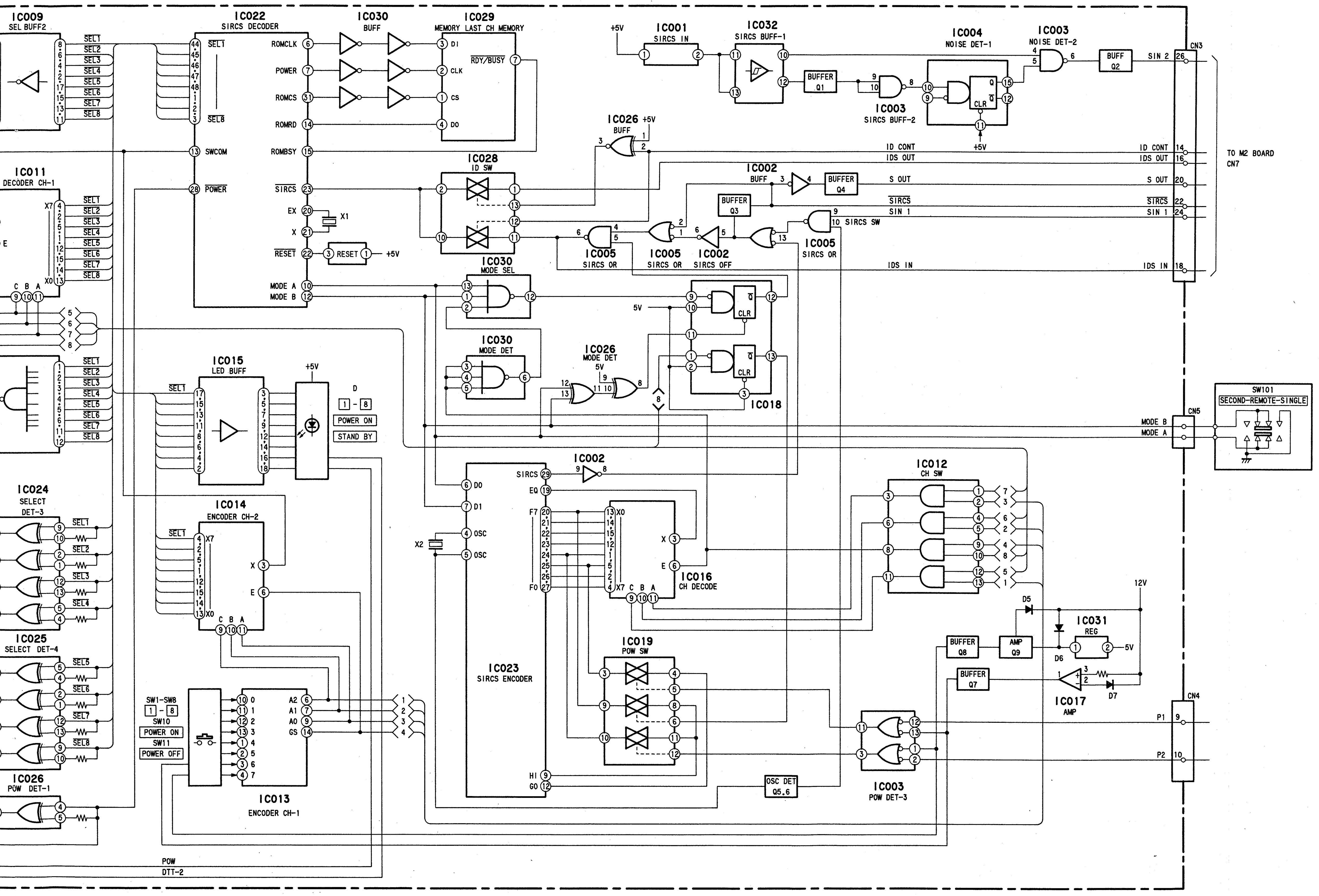

CN4
CN5
HN-4
25
HN-3
3
HN-2
HN-9
+12V
GND
1
2
3
4
CN2
SWICHING
REGULATOR
HN-1
CN1
+12V
GND
CN8
CN9
2 BOARD)
CN10
CN11
L
N
LINE FILTER
BOARD
FL1
F
4 3 2 1 CN32
F.G
HN-5
HN-7
HN-8
15
15
CN111
CN112
IN
OUT
REMOTE1
F.G
HN-6
BROWN
WHITE
6
3
4
1
WHITE
BROWN
SW901
POWER
SW
CN901
L
N
3
GND
4
AC INLET
SECOND
REMOTE2
SINGLE
X
SW101
CN113
REMOTE2
E
D

4-2. BLOCK DIAGRAMS

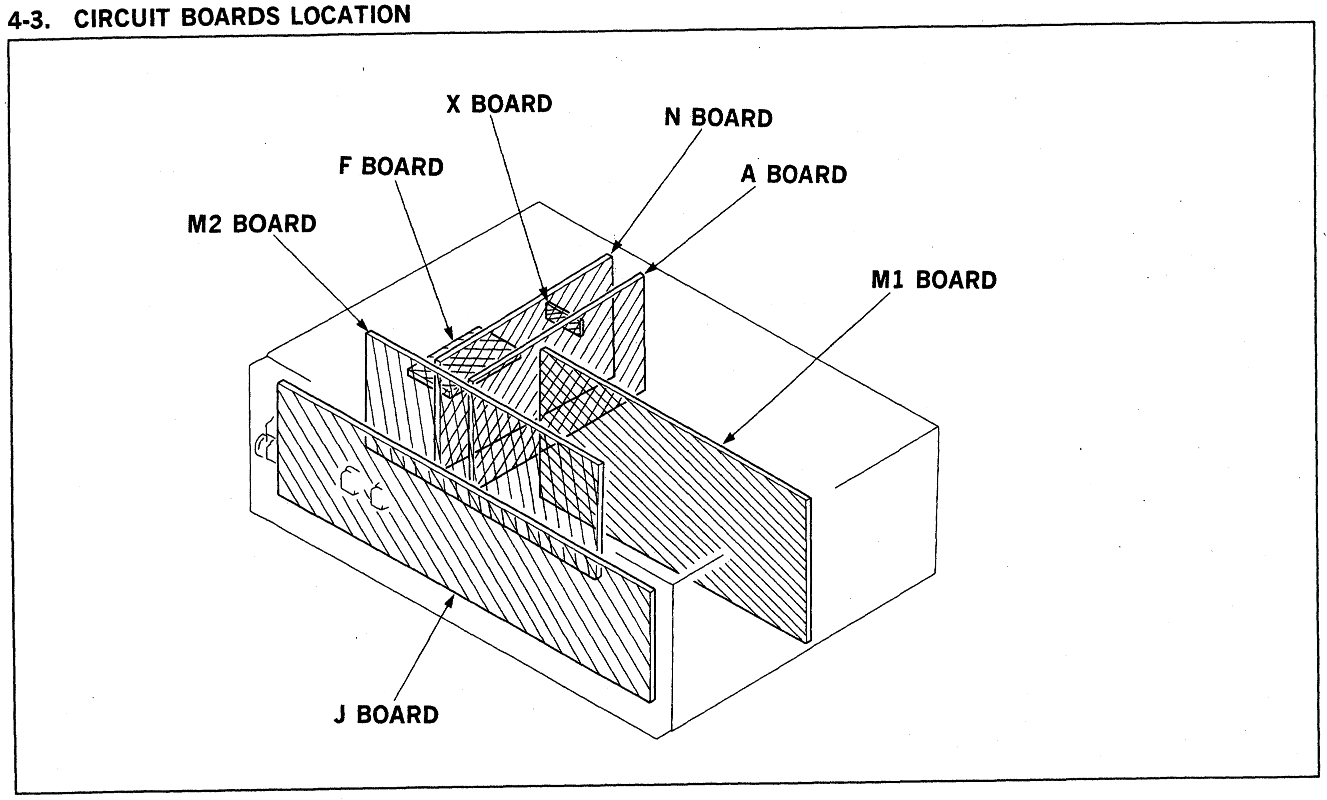

M1
J1-J8
A C
IF BORAD 1-8
J8
J4
CN21
ID TV58
ID TV14
AUDIO L
AUDIO R
HD/CSYNC
VD
1200SEL
PROTECT
RGB/VIDEO
CVIDEO/YC
ID CONT
ID SIN
ID SOUT
SEL1
SEL2
SEL3
SEL4
SEL5
SEL6
SEL7
SEL8
CN30
CN22-CN29
M2
CN6
IC7
IC3 CH SEL-1
IC4 CH SEL-2
IC5 CH SEL-3
IC6 CH SEL-4
CN7
TO J BOARD CN3
CN8
PROTECT
POWER
SW Q5
12V
OCP Q2
12V REG Q1
9V REG IC2
9V
5V REG IC1
5V
PROTECTOR Q4
SWITCH Q3
AC IN
POWER SWITCH
F BOARD FL1
SWITCHING REGULATOR
CN9
12V
GND
NF1
RL1
RL2
RL3
RL4
RL5
RL6
RL7
RL8
RL9
RL10
RL11
RL12
RL13
RL14
RL15
RL16
RL17
RL18
RL19
RL20
RL21
RL22
RL23
RL24
D1
D2
D3
D4
D5
D6
D7
D8
+12V
CN19
CN18
CN17
CN16
CN15
CN14
CN13
CN12
TO J BOARD CN3
CN7
SEL
SELECT
SOUT
S IN 1
S IN 2
SIRCS
ID CONT
ID S IN
ID S OUT
CN6
HD/CSYNC
1200SEL
RGB/VIDEO
CVIDEO/YC
AUDIO R
AUDIO L
VD
CN20
R-Y/R
Y/G
B-Y/B


A
N
J9
J10
CN11
CN10
SEL
SELECT
SOUT
S IN 1
S IN 2
SIRCS
ID CONT
ID S IN
ID S OUT
HD/CSYNC
1200SEL
RGB/VIDEO
CVIDEO/YC
AUDIO R
AUDIO L
VD
R-Y/R
Y/G
B-Y/B
AUDIO OUT
R/CVIDEO OUT
G/Y OUT
B/C OUT
CVIDEO/YC OUT
RGB/VIDEO OUT
VD OUT
HD/CSYNC OUT
SIRCS OUT
REMOTE 1 OUT
SIRCS IN
HD/CSYNC IN
VD IN
RGB/VIDEO IN
AUDIO IN
CVIDEO/YC IN
R/CVIDEO IN
G/Y IN
B/C IN
REMOTE 1 IN
RGB/VIDEO OUT
RGB/VIDEO IN
1200SEL
R/C VIDEO
R-Y/R
G/Y
Y/G
B/C
B-Y/B
C VIDEO/YC IN
C VIDEO/YC OUT
VD IN-R
VD IN
HD/SYNC IN-R
HD/SYNC IN
SELECT
HD SYNC OUT
VD OUT
SEL
AUDIO R
AUDIO L
S IN 2
S IN 2
S OUT
+5V
+12V
IC4 MODE DET
IC1 VIDEO BUFFER
IC2 VIDEO BUFFER
IC3 VIDEO BUFFER
IN OUT
RL1
RL2
RL3
RL4
RL5
RL6
D17 PROTECTER
D7 PROTECTER
J1
J101
R
VIDEO
G
B
Y/C
CLAMP Q2
CLAMP Q1
IC5 SYNC SWITCH
IC6 AUDIO AMP
D12 D13 D14 D15 PROTECTOR
IC11
HD BUFFER Q10
VD BUFFER Q11
IC9
IC10
HD/VD BUFFER
IC8 PULSE GENERATOR
PULSE GEN Q3
IC7 PULSE GENERATOR
IC10 PULSE ADD
CLR
SW1
SW2
D18
D19
D20
D21
D23
CLAMP Q6
CLAMP Q8
VD BUFFER Q4,7
HD BUFFER Q5,9
J2
VD
HD/SYNC
IC12 RESET
IC13 AUDIO MUTE
D16 PROTECTER
RL7
AUDIO R
AUDIO L
R,B/C
R,G/Y
R,R/C VIDEO
SELECT
AUDIO IN L
AUDIO R
AUDIO IN R
IC1 SEL DET
AUDIO AMP Q3,5,7
AUDIO MIX,BUFFER Q1,2
AUDIO AMP Q4,6,8
BUFFER Q101
BUFFER Q201
BUFFER Q301
SW1-C
SW1-B
SW1-A
AMP Q102
AMP Q202
AMP Q302
+6V
IC2 BUFF
IC3 BUFF
IC4 BUFF
IC5 CLAMP
IC7 CLAMP
IC8 CLAMP
Q103,104
Q203,204
Q303,304
IC6 +6V REG
IN OUT
B/C
B/C OUT
G/Y
G/Y OUT
R/C VIDEO
R/C VIDEO OUT
AUDIO OUT


J
CN3
TO M2 BOARD
CN7
CN4
REMOTE2
IC006
SEL BUFF1
IC009
SEL BUFF2
IC022
SIRCS DECODER
IC030
BUFF
IC029
MEMORY LAST CH MEMORY
IC001
SIRCS IN
IC032
SIRCS BUFF-1
BUFFER Q1
IC026
BUFF
IC028
ID SW
IC002
BUFF
BUFFER Q4
BUFFER Q3
IC005
SIRCS OR
IC005
SIRCS OR
IC002
SIRCS OFF
IC005
SIRCS OR
IC010
ENCODER CH-2
IC011
DECODER CH-1
IC030
MODE SEL
IC030
MODE DET
IC026
MODE DET
IC018
IC007
BUFF
IC008
SELECT
DET-5
IC015
LED BUFF
POWER ON
STAND BY
IC002
POW DET-3
IC020
IC020
SELECT
DET-1
IC024
SELECT
DET-3
IC025
SELECT DET-4
IC026
POW DET-1
IC002
IC014
ENCODER CH-2
IC013
ENCODER CH-1
SW1-SW8
SW10
POWER ON
SW11
POWER OFF
IC002
IC023
SIRCS ENCODER
IC016
CH DECODE
IC019
POW SW
OSC DET
Q5.6
POW
DTT-2
ROMCLK
POWER
ROMCS
ROMRD
ROMBSY
SWCOM
SIRCS
EX
X
RESET
MODE A
MODE B
X1
X2
+5V


IC009
SEL BUFF2
IC022
SIRCS DECODER
IC030
BUFF
IC029
MEMORY LAST CH MEMORY
+5V
IC001
SIRCS IN
IC032
SIRCS BUFF-1
IC004
NOISE DET-1
IC003
NOISE DET-2
BUFF
Q2
SIN 2
CN3
BUFFER
Q1
IC003
SIRCS BUFF-2
CLR
+5V
SEL1
SEL8
ROMCLK
POWER
ROMCS
ROMRD
ROMBSY
SWCOM
DI
CLK
CS
DO
RDY/BUSY
IC026 +5V
BUFF
ID CONT
IDS OUT
ID CONT
IDS OUT
TO M2 BOARD
CN7
IC011
DECODER CH-1
IC028
ID SW
IC002
BUFF
BUFFER
Q4
S OUT
S OUT
BUFFER
Q3
SIRCS
SIN 1
SIRCS
SIN 1
10 SIRCS SW
POWER
SIRCS
EX
X
X1
RESET
RESET
+5V
IC005
SIRCS OR
IC005
SIRCS OR
IC002
SIRCS OFF
IC005
SIRCS OR
IDS IN
IDS IN
MODE A
MODE B
IC030
MODE SEL
5V
IC018
IC030
MODE DET
IC026
MODE DET
5V
IC015
LED BUFF
+5V
D
1 - 8
POWER ON
STAND BY
SW101
SECOND-REMOTE-SINGLE
CN5
MODE B
MODE A
IC024
SELECT
DET-3
IC014
ENCODER CH-2
IC002
SIRCS
EQ
F7
F0
X2
OSC
OSC
D0
D1
IC012
CH SW
IC016
CH DECODE
IC023
SIRCS ENCODER
12V
D5
IC031
REG
D6
BUFFER
Q8
AMP
Q9
5V
BUFFER
Q7
IC017
AMP
D7
IC025
SELECT DET-4
IC019
POW SW
SW1-SW8
1 - 8
SW10
POWER ON
SW11
POWER OFF
A2
A1
A0
GS
IC013
ENCODER CH-1
HI
GO
OSC DET
Q5,6
IC003
POW DET-3
CN4
P1
P2
IC026
POW DET-1
POW
DTT-2

4-3. CIRCUIT BOARDS LOCATION



4-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note: The components identified by shading and mark ⚠ are critical for safty. Replace only with part number specified.

Note:

- All capacitors are in μF unless otherwise noted. p: $\mu\mu$F
  50 WV or less are not indicated except for electrolytic and tantalums.
  All electrolytics are in 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ =1000Ω , MΩ =1000KΩ
- Indication of resistance, which does not have one for rating electrical power is as follows.

Pitch: 5 mm	
Rating electrical power: 1/4W	

- -W- : nonflamable resistor.
- ☐ : panel designation.
- Readings are taken with a signal generator input.
- Readings are taken with a 10 MΩ digital maltimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be neted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- V : B+ bus.
- ⁎ : Can not be measured.

J [SWITCH AND CONTROL]

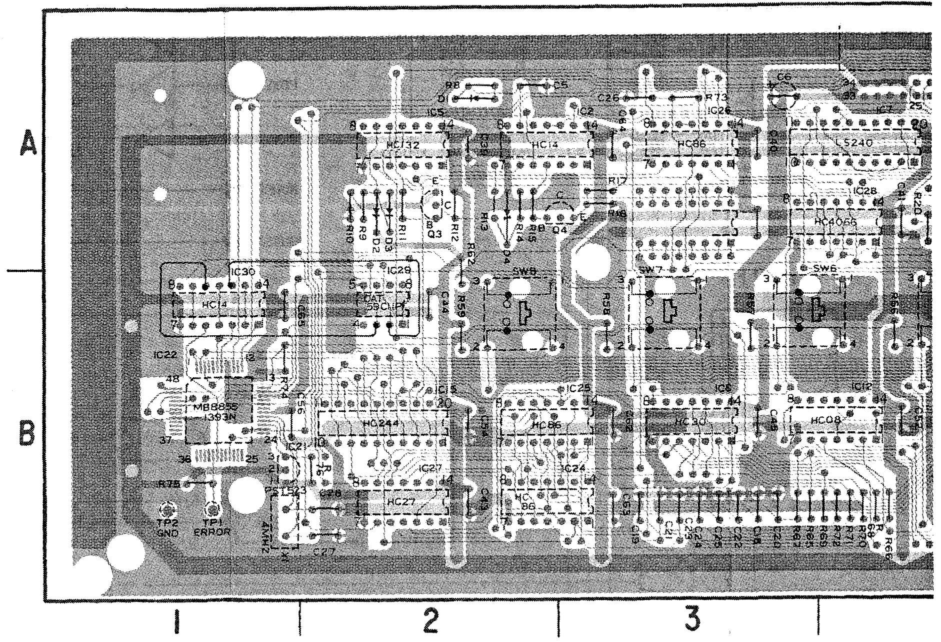
—J BOARD—

IC	
IC1	B-8
IC2	A-3
IC3	B-8
IC4	A-8
IC5	A-2
IC6	A-5
IC7	A-4
IC8	B-3
IC9	A-5
IC10	A-5
IC11	B-4
IC12	B-4
IC13	B-5
IC14	B-4
IC15	B-2
IC16	B-5
IC17	B-6
IC18	A-8
IC19	A-7
IC20	A-7
IC21	B-1
IC22	B-1
IC23	B-7
IC24	B-3
IC25	B-3
IC26	A-3
IC27	B-2
IC28	A-4
IC29	B-2
IC30	B-1
IC31	B-6
IC32	B-8

TRANSISTOR	
Q1	B-8
Q2	B-8
Q3	A-2
Q4	A-2
Q5	B-7
Q6	B-7
Q7	B-6
Q8	B-7
Q9	B-7

DIODE	
D1	A-2
D2	A-2
D3	A-2
D4	A-2
D5	B-7
D6	B-7
D7	B-6
D8	A-8
D9	A-8

—J Board—



J [SWITCH AND CONTROL]

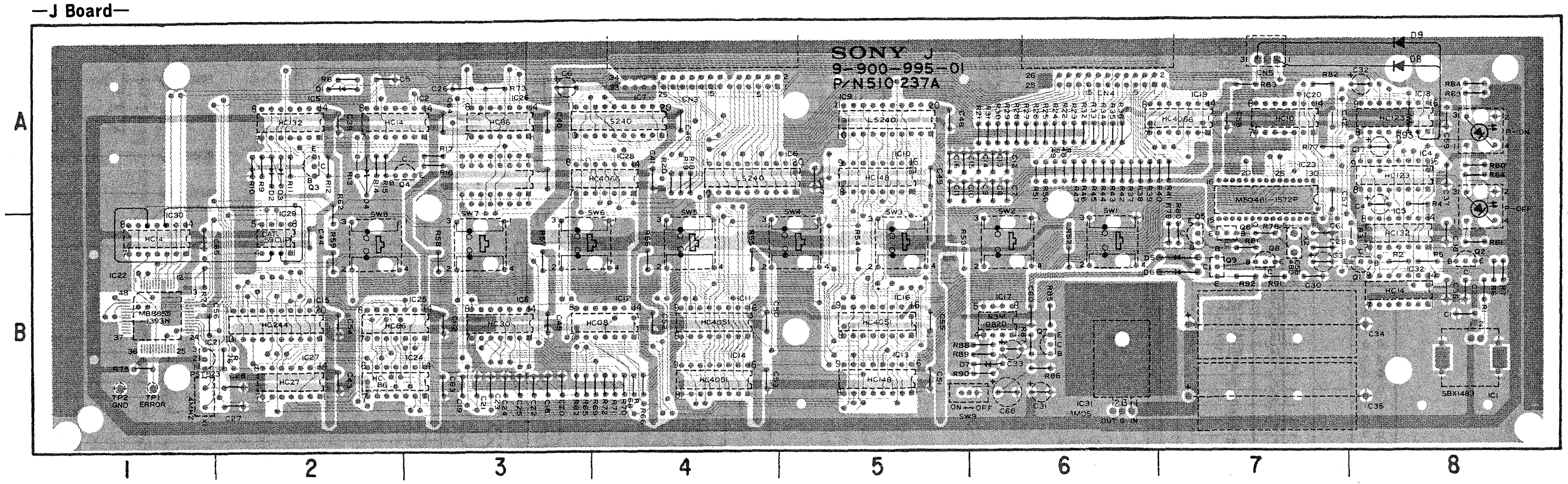
—J BOARD—

IC	
IC1	B-8
IC2	A-3
IC3	B-8
IC4	A-8
IC5	A-2
IC6	A-5
IC7	A-4
IC8	B-3
IC9	A-5
IC10	A-5
IC11	B-4
IC12	B-4
IC13	B-5
IC14	B-4
IC15	B-2
IC16	B-5
IC17	B-6
IC18	A-8
IC19	A-7
IC20	A-7
IC21	B-1
IC22	B-1
IC23	B-7
IC24	B-3
IC25	B-3
IC26	A-3
IC27	B-2
IC28	A-4
IC29	B-2
IC30	B-1
IC31	B-6
IC32	B-8

TRANSISTOR	
Q1	B-8
Q2	B-8
Q3	A-2
Q4	A-2
Q5	B-7
Q6	B-7
Q7	B-6
Q8	B-7
Q9	B-7

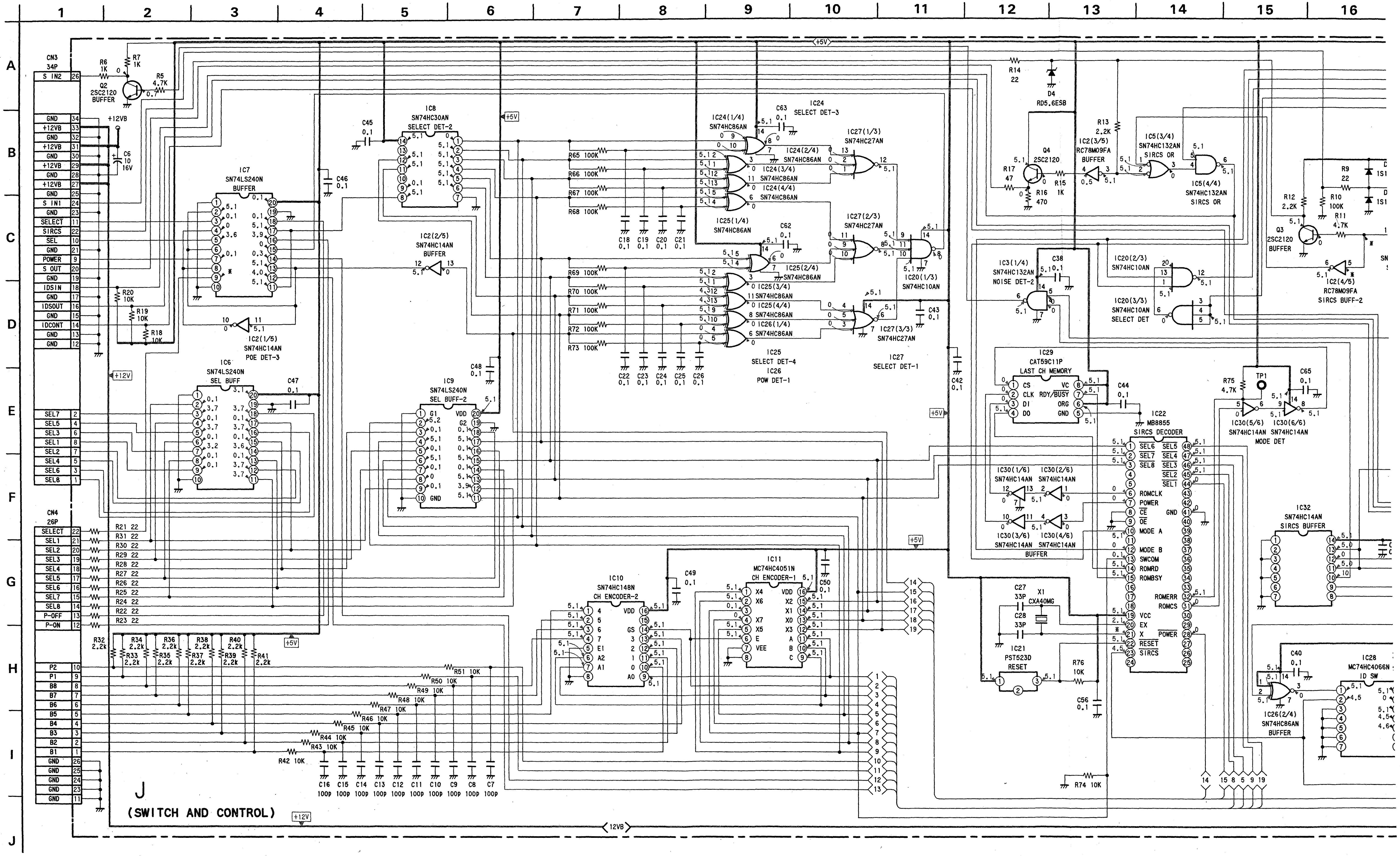
DIODE	
D1	A-2
D2	A-2
D3	A-2
D4	A-2
D5	B-7
D6	B-7
D7	B-6
D8	A-8
D9	A-8

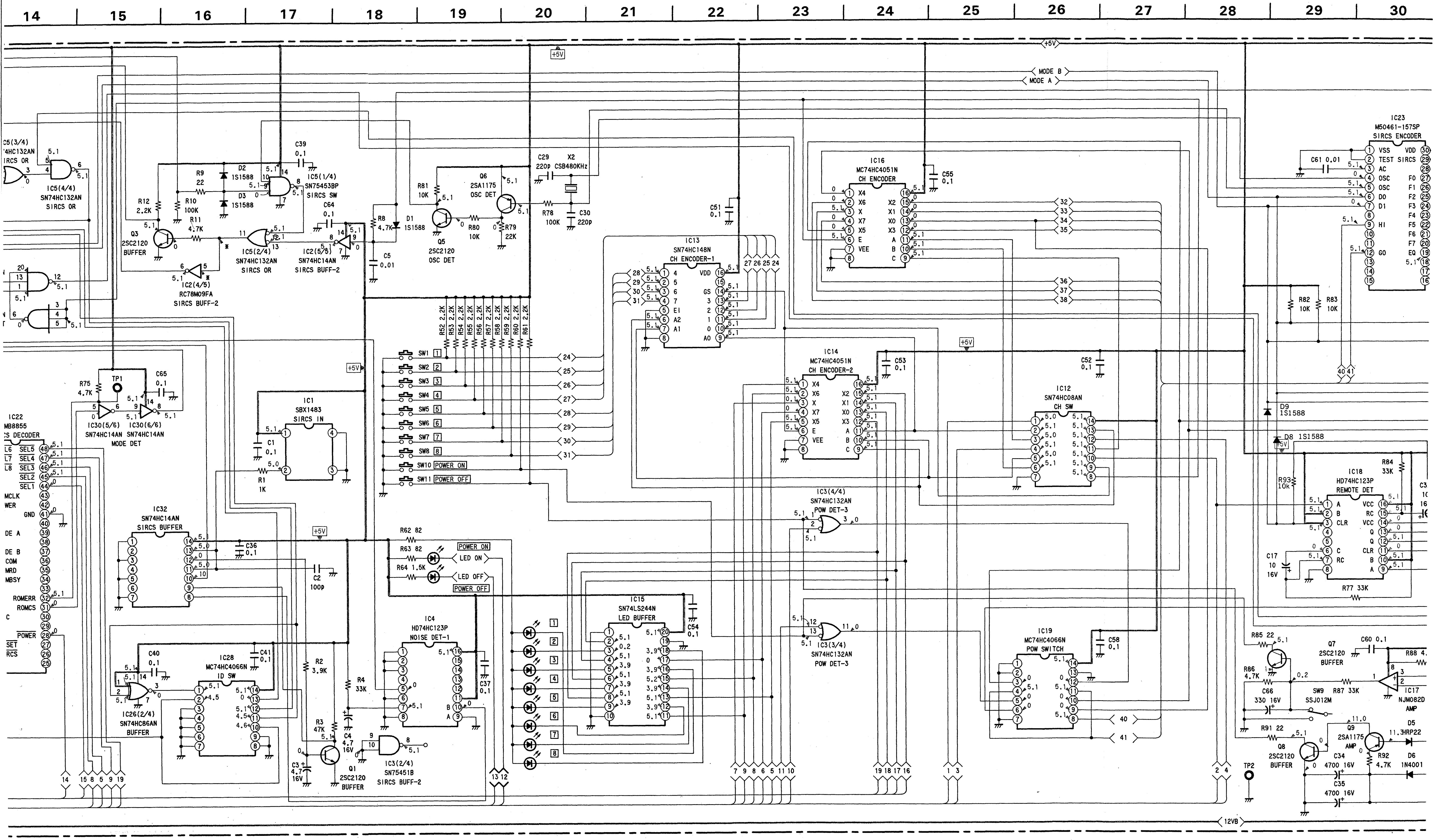
—J Board—

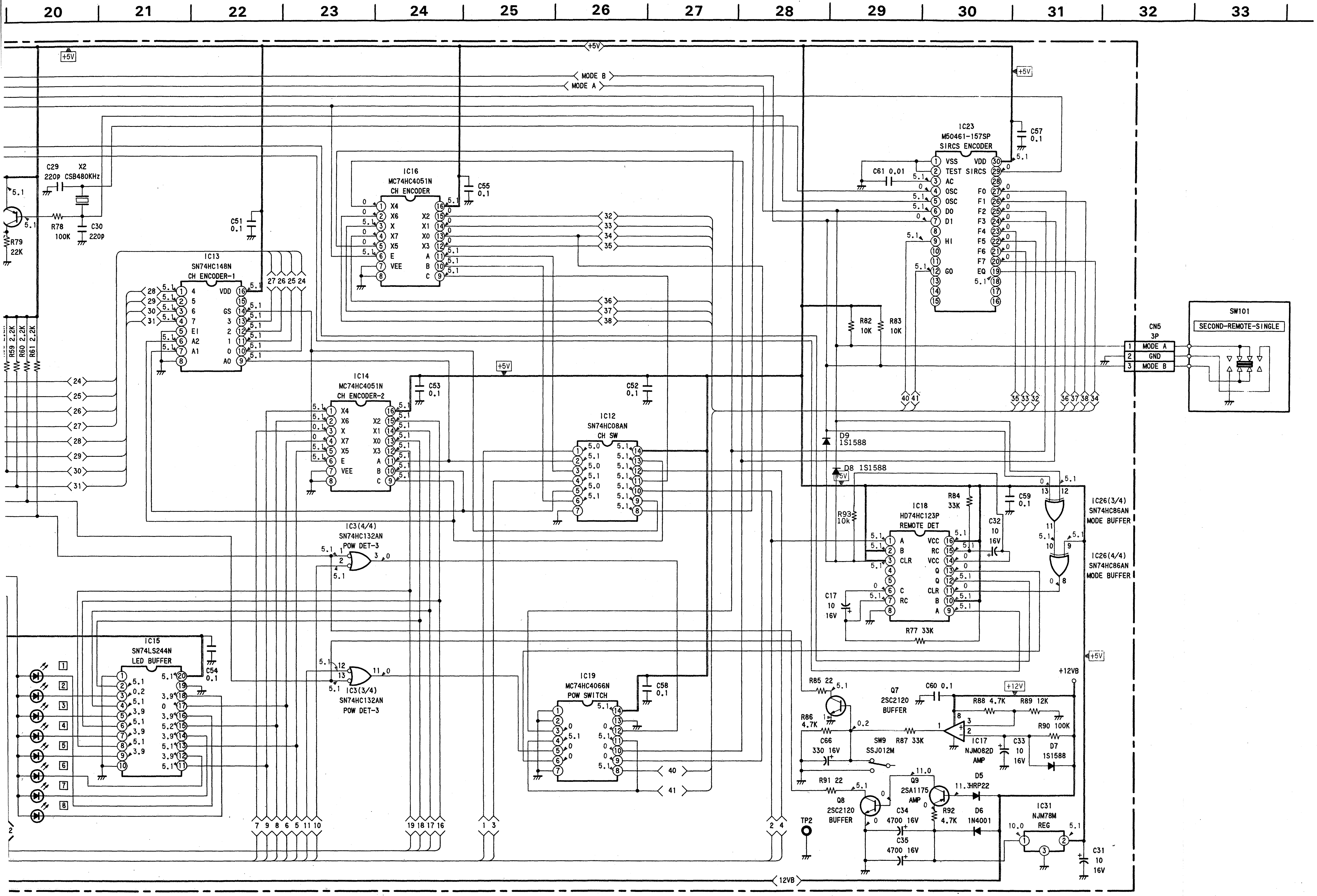


- ▩ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

I.
tion


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
CN3 34P
S IN2
GND
+12VB
S IN1
SELECT
SIRCS
SEL
POWER
S OUT
IDSIN
IDSOUT
IDCONT
Q2 2SC2120 BUFFER
R6 1K
R7 1K
R5 4.7K
C6 10 16V
+12VB
R20 10K
R19 10K
R18 10K
IC7 SN74LS240N BUFFER
IC2(1/5) SN74HC14AN POE DET-3
IC6 SN74LS240N SEL BUFF
C47 0.1
C46 0.1
C45 0.1
IC8 SN74HC30AN SELECT DET-2
IC2(2/5) SN74HC14AN BUFFER
C48 0.1
IC9 SN74LS240N SEL BUFF-2
+5V
+12V
SEL7
SEL5
SEL3
SEL1
SEL2
SEL4
SEL6
SEL8
CN4 26P
SELECT
P-OFF
P-ON
R21 22
R31 22
R30 22
R29 22
R28 22
R27 22
R26 22
R25 22
R24 22
R22 22
R23 22
R32 2.2k
R34 2.2k
R33 2.2k
R36 2.2k
R35 2.2k
R38 2.2k
R37 2.2k
R40 2.2k
R39 2.2k
R41 2.2k
P2
P1
B8
B7
B6
B5
B4
B3
B2
B1
GND
R51 10K
R50 10K
R49 10K
R48 10K
R47 10K
R46 10K
R45 10K
R44 10K
R43 10K
R42 10K
C16 100p
C15 100p
C14 100p
C13 100p
C12 100p
C11 100p
C10 100p
C9 100p
C8 100p
C7 100p
J
(SWITCH AND CONTROL)
+12V
12VB
R65 100K
R66 100K
R67 100K
R68 100K
R69 100K
R70 100K
R71 100K
R72 100K
R73 100K
C18 0.1
C19 0.1
C20 0.1
C21 0.1
C22 0.1
C23 0.1
C24 0.1
C25 0.1
C26 0.1
IC24(1/4) SN74HC86AN
C63 0.1
IC24 SELECT DET-3
IC24(2/4) SN74HC86AN
IC24(3/4) SN74HC86AN
IC24(4/4) SN74HC86AN
IC25(1/4) SN74HC86AN
C62 0.1
IC25(2/4) SN74HC86AN
IC25(3/4) SN74HC86AN
IC25(4/4) SN74HC86AN
IC26(1/4) SN74HC86AN
IC25 SELECT DET-4
IC26 POW DET-1
IC27(1/3) SN74HC27AN
IC27(2/3) SN74HC27AN
IC27(3/3) SN74HC27AN
IC27 SELECT DET-1
IC20(1/3) SN74HC10AN
C43 0.1
C42 0.1
C49 0.1
IC10 SN74HC148N CH ENCODER-2
IC11 MC74HC4051N CH ENCODER-1
C50 0.1
R14 22
D4 RD5.6ESB
R13 2.2K
R17 47
Q4 2SC2120
R16 470
R15 1K
IC2(3/5) RC78M09FA BUFFER
IC5(3/4) SN74HC132AN SIRCS OR
IC5(4/4) SN74HC132AN SIRCS OR
IC3(1/4) SN74HC132AN NOISE DET-2
C38 0.1
IC20(2/3) SN74HC10AN
IC20(3/3) SN74HC10AN SELECT DET
R9 22
R10 100K
R11 4.7K
R12 2.2K
Q3 2SC2120 BUFFER
IC2(4/5) RC78M09FA SIRCS BUFF-2
IS1
IC29 CAT59C11P LAST CH MEMORY
CS CLK DI DO VC RDY/BUSY ORG GND
C44 0.1
IC22 MB8855 SIRCS DECODER
SEL6 SEL7 SEL8 ROMCLK POWER CE OE MODE A MODE B SWCOM ROMRD ROMBSY VCC EX X RESET SIRCS SEL5 SEL4 SEL3 SEL2 SEL1 GND ROMERR ROMCS POWER
IC30(1/6) SN74HC14AN
IC30(2/6) SN74HC14AN
IC30(3/6) SN74HC14AN
IC30(4/6) SN74HC14AN BUFFER
R75 4.7K
TP1
C65 0.1
IC30(5/6) SN74HC14AN
IC30(6/6) SN74HC14AN MODE DET
C27 33P
X1 CXA40MG
C28 33P
IC21 PST523D RESET
R76 10K
C56 0.1
R74 10K
IC32 SN74HC14AN SIRCS BUFFER
C40 0.1
IC28 MC74HC4066N ID SW
IC26(2/4) SN74HC86AN BUFFER


14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
+5V
MODE B
MODE A
IC5(3/4)
SN74HC132AN
SIRCS OR
IC5(4/4)
SN74HC132AN
SIRCS OR
Q3
2SC2120
BUFFER
R12 2.2K
R9 22
R10 100K
R11 4.7K
D2 1S1588
D3 1S1588
IC5(1/4)
SN75453BP
SIRCS SW
IC5(2/4)
SN74HC132AN
SIRCS OR
IC2(4/5)
RC78M09FA
SIRCS BUFF-2
C39 0.1
C64 0.1
IC2(5/5)
SN74HC14AN
SIRCS BUFF-2
R8 4.7K
D1 1S1588
C5 0.01
R81 10K
Q5
2SC2120
OSC DET
Q6
2SA1175
OSC DET
R80 10K
R79 22K
C29 220p
X2 CSB480KHz
R78 100K
C30 220p
C51 0.1
IC13
SN74HC148N
CH ENCODER-1
IC16
MC74HC4051N
CH ENCODER
C55 0.1
IC23
M50461-157SP
SIRCS ENCODER
C61 0.01
VSS
VDD
TEST SIRCS
AC
OSC
DO
D1
HI
GO
F0
F1
F2
F3
F4
F5
F6
F7
EQ
R82 10K
R83 10K
R52 2.2K
R53 2.2K
R54 2.2K
R55 2.2K
R56 2.2K
R57 2.2K
R58 2.2K
R59 2.2K
R60 2.2K
R61 2.2K
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW10 POWER ON
SW11 POWER OFF
IC14
MC74HC4051N
CH ENCODER-2
C53 0.1
C52 0.1
IC12
SN74HC08AN
CH SW
D9 1S1588
D8 1S1588
R84 33K
R93 10K
IC18
HD74HC123P
REMOTE DET
C17 10 16V
R77 33K
IC22
MB8855
SIRCS DECODER
SEL5
SEL4
SEL3
SEL2
SEL1
MCLK
WER
GND
MODE A
MODE B
COM
MRD
MBSY
ROMERR
ROMCS
POWER
SET
RCS
R75 4.7K
TP1
C65 0.1
IC30(5/6)
SN74HC14AN
IC30(6/6)
SN74HC14AN
MODE DET
IC1
SBX1483
SIRCS IN
C1 0.1
R1 1K
IC32
SN74HC14AN
SIRCS BUFFER
C36 0.1
C2 100p
R62 82
R63 82
R64 1.5K
POWER ON
LED ON
LED OFF
POWER OFF
IC3(4/4)
SN74HC132AN
POW DET-3
IC3(3/4)
SN74HC132AN
POW DET-3
IC4
HD74HC123P
NOISE DET-1
C37 0.1
R2 3.9K
R4 33K
R3 47K
C4 4.7 16V
C3 4.7 16V
Q1
2SC2120
BUFFER
IC3(2/4)
SN75451B
SIRCS BUFF-2
C40 0.1
IC26(2/4)
SN74HC86AN
BUFFER
IC28
MC74HC4066N
ID SW
C41 0.1
IC15
SN74LS244N
LED BUFFER
C54 0.1
IC19
MC74HC4066N
POW SWITCH
C58 0.1
R85 22
R86 4.7K
C66 330 16V
Q7
2SC2120
BUFFER
C60 0.1
R88
SW9 SSJ012M
R87 33K
IC17
NJM082D
AMP
R91 22
Q8
2SC2120
BUFFER
Q9
2SA1175
AMP
C34 4700 16V
C35 4700 16V
R92 4.7K
D5 11.3HRP22
D6 1N4001
TP2
12VB


20
21
22
23
24
25
26
27
28
29
30
31
32
33
+5V
MODE B
MODE A
C29 220P
X2 CSB480KHz
R78 100K
C30 220P
R79 22K
C51 0.1
IC13 SN74HC148N CH ENCODER-1
IC16 MC74HC4051N CH ENCODER
C55 0.1
IC14 MC74HC4051N CH ENCODER-2
C53 0.1
C52 0.1
IC12 SN74HC08AN CH SW
IC23 M50461-157SP SIRCS ENCODER
C57 0.1
C61 0.01
VSS
VDD
TEST
SIRCS
AC
OSC
DO
D1
HI
GO
F0
F1
F2
F3
F4
F5
F6
F7
EQ
R82 10K
R83 10K
CN5 3P
MODE A
GND
MODE B
SW101
SECOND-REMOTE-SINGLE
D9 1S1588
D8 1S1588
IC18 HD74HC123P REMOTE DET
R84 33K
R93 10k
C59 0.1
C32 10 16V
C17 10 16V
R77 33K
IC26(3/4) SN74HC86AN MODE BUFFER
IC26(4/4) SN74HC86AN MODE BUFFER
IC3(4/4) SN74HC132AN POW DET-3
IC3(3/4) SN74HC132AN POW DET-3
IC15 SN74LS244N LED BUFFER
C54 0.1
IC19 MC74HC4066N POW SWITCH
C58 0.1
R59 2.2K
R60 2.2K
R61 2.2K
R85 22
R86 4.7K
Q7 2SC2120 BUFFER
C60 0.1
+12V
+12VB
R88 4.7K
R89 12K
R90 100K
IC17 NJM082D AMP
C33 10 16V
D7 1S1588
C66 330 16V
SW9 SSJ012M
R87 33K
R91 22
Q8 2SC2120 BUFFER
Q9 2SA1175 AMP
D5 HRP22
R92 4.7K
D6 1N4001
C34 4700 16V
C35 4700 16V
IC31 NJM78M REG
C31 10 16V
TP2
12VB
1
2
3
4
5
6
7
8

A [MONITOR OUT]

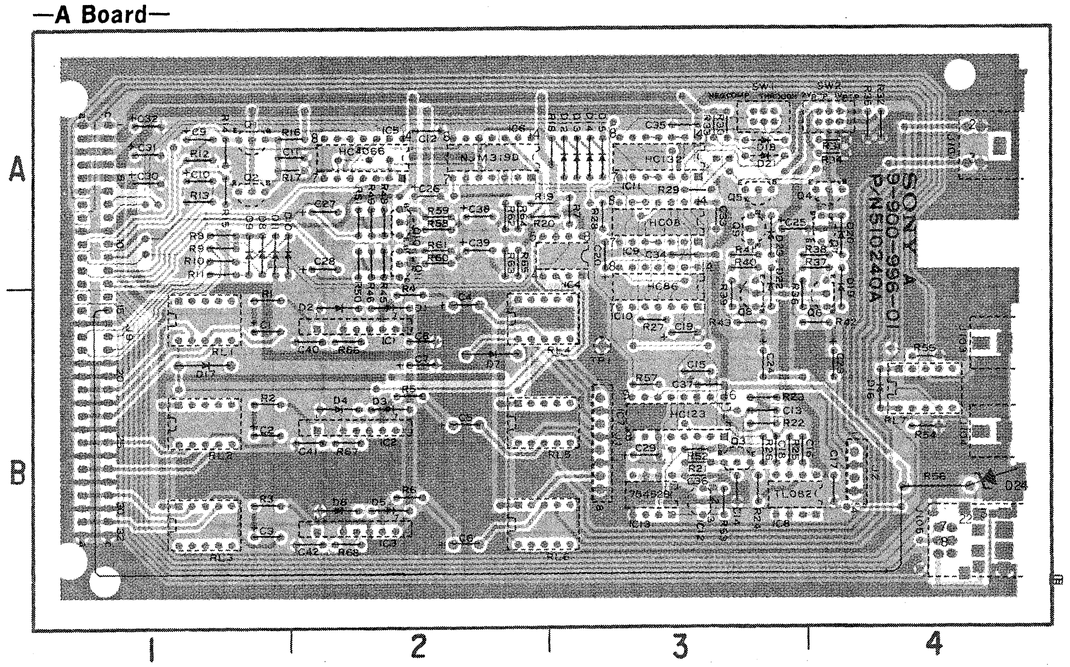
—A BOARD—

IC	
IC1	B-2
IC2	B-2
IC3	B-2
IC4	A-3
IC5	A-2
IC6	A-2
IC7	B-3
IC8	B-3
IC9	A-3
IC10	B-3
IC11	A-3
IC12	B-3
IC13	B-3

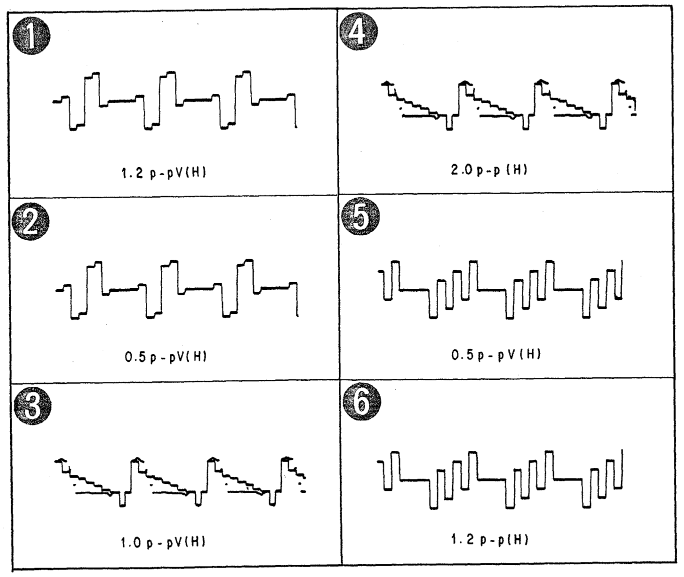
TRANSISTOR	
Q1	A-1
Q2	A-1
Q3	B-3
Q4	A-4
Q5	A-3
Q6	B-4
Q7	A-4
Q8	B-3
Q9	A-2
Q10	A-2
Q11	A-2

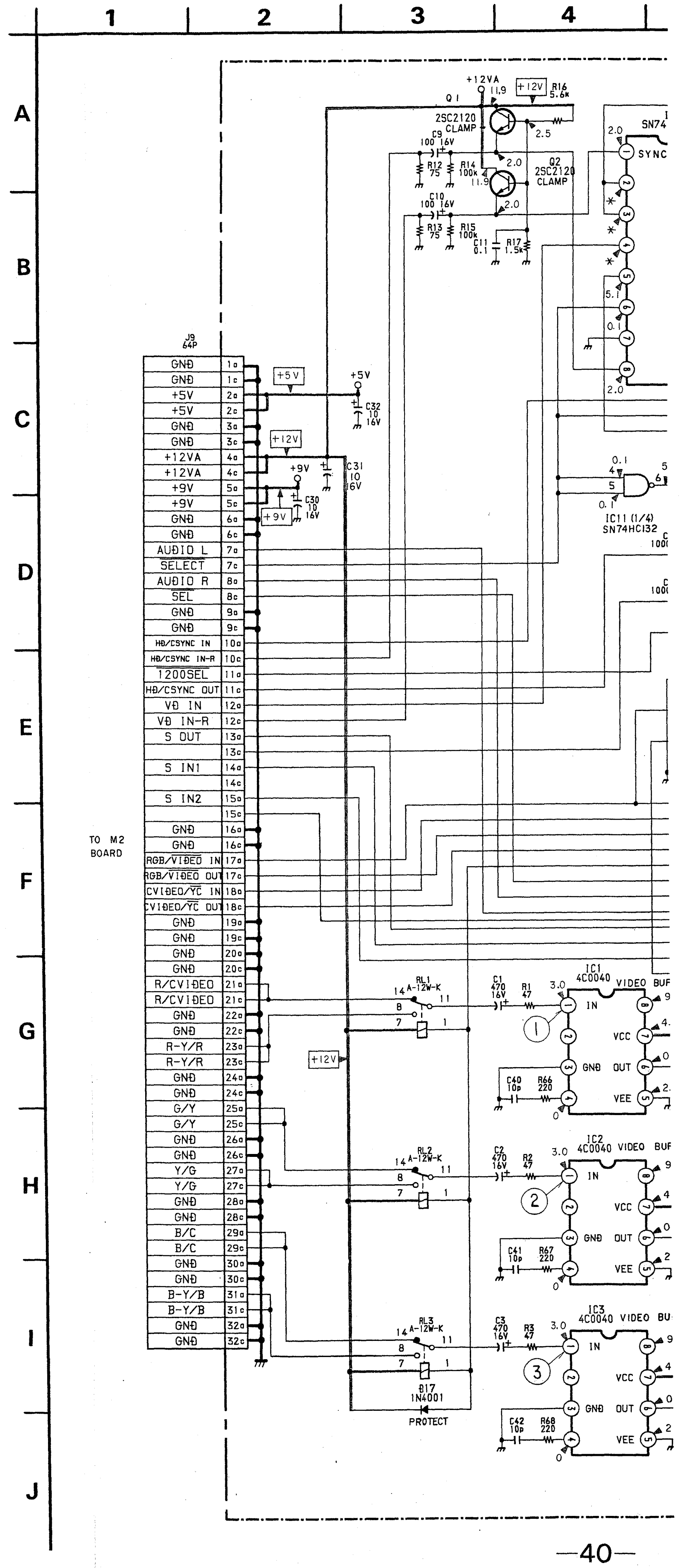
DIODE	
D1	B-2
D2	B-2
D3	B-2
D4	B-2
D5	B-2
D6	B-2
D7	B-2
D8	A-1
D9	A-1
D10	A-1
D11	A-1
D12	A-3
D13	A-3
D14	A-3
D15	A-3
D16	B-4
D17	B-1
D18	A-3
D19	B-4
D20	A-4
D21	A-3
D22	A-3
D23	A-3
D24	B-4

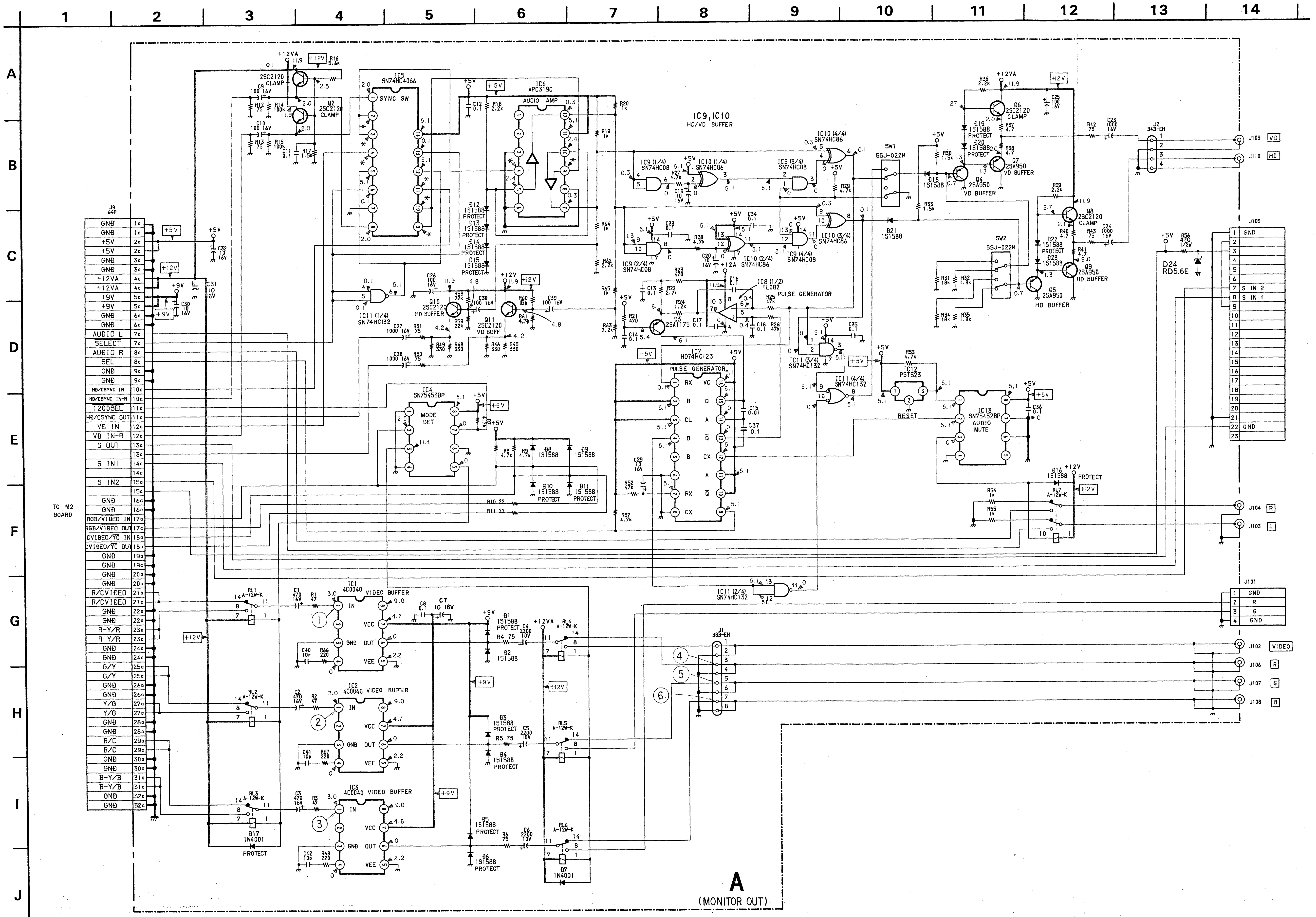
—A Board—

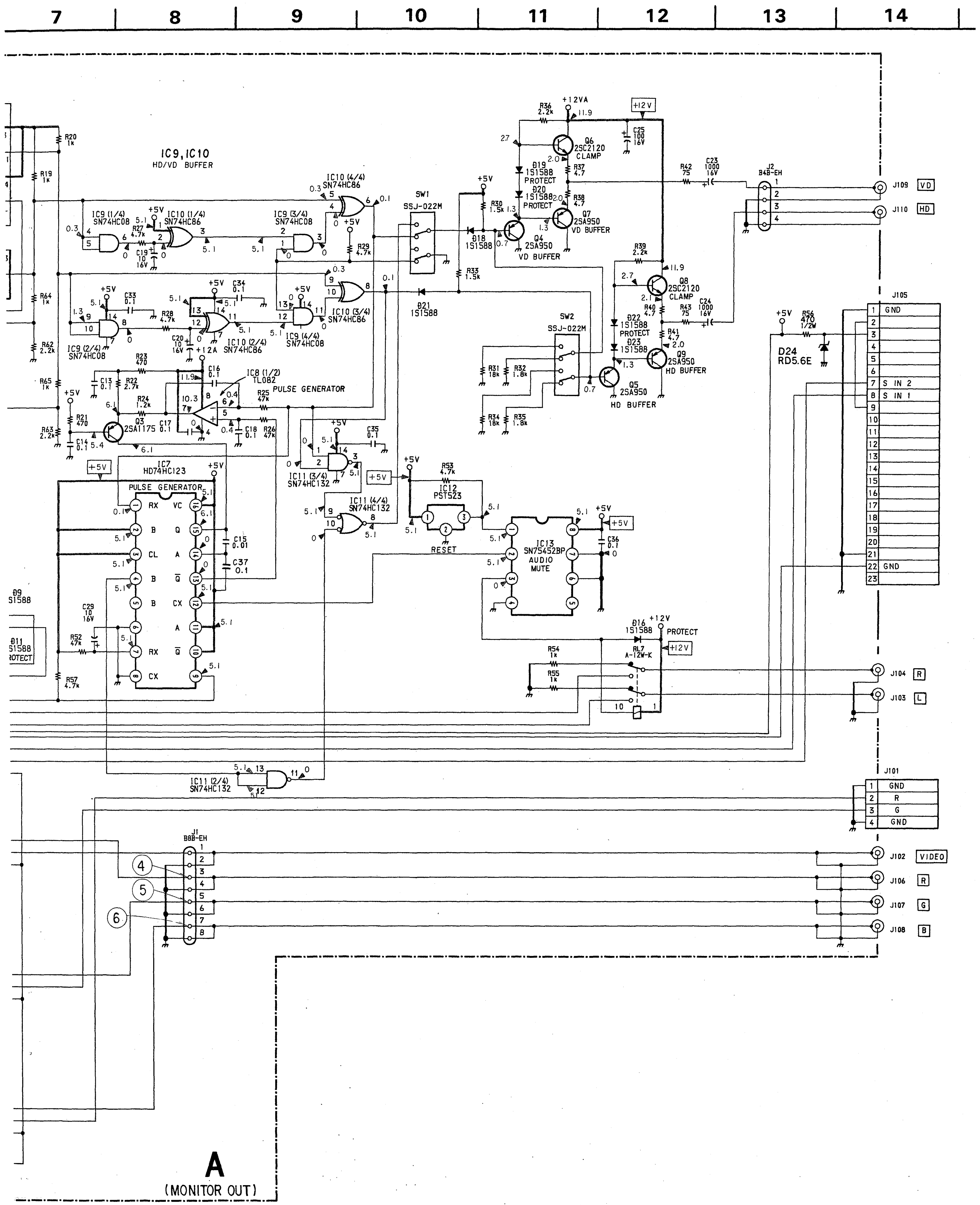

A
B
1
2
3
4
SONY A
1-636-996-01
P-N5102-40A

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.



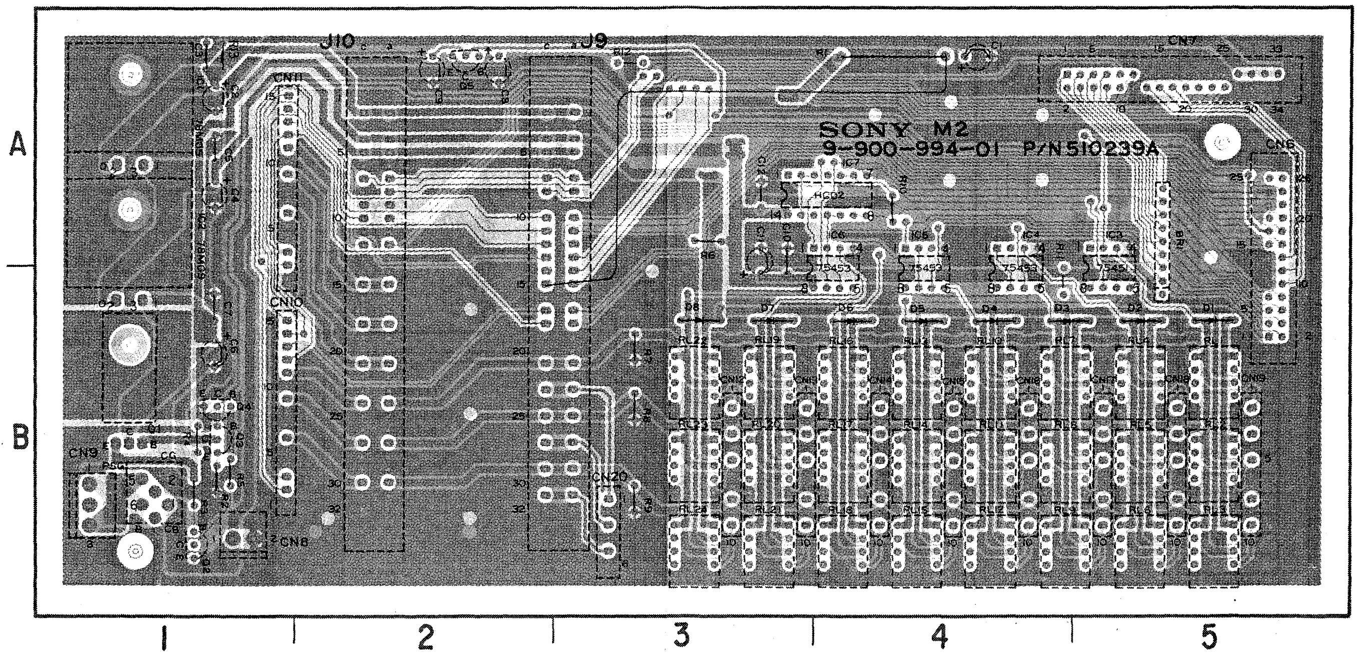

1
2
3
4
A
B
C
D
E
F
G
H
I
J
J3 64P
TO M2 BOARD
GND
+5V
+12VA
+9V
AUDIO L
SELECT
AUDIO R
SEL
HD/CSYNC IN
HD/CSYNC IN-R
1200SEL
HD/CSYNC OUT
VD IN
VD IN-R
S OUT
S IN1
S IN2
RGB/VIDEO IN
RGB/VIDEO OUT
CVIDEO/YC IN
CVIDEO/YC OUT
R/CVIDEO
R-Y/R
G/Y
Y/G
B/C
B-Y/B
Q1 2SC2120 CLAMP
Q2 2SC2120 CLAMP
IC11 (1/4) SN74HC132
RL1 A-12W-K
RL2 A-12W-K
RL3 A-12W-K
IC1 4C0040 VIDEO BUF
IC2 4C0040 VIDEO BUF
IC3 4C0040 VIDEO BU
D17 1N4001
PROTECT
IN
VCC
GND
OUT
VEE
SYNC


1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I J
J9 64P
TO M2 BOARD
GND
+5V
+12VA
+9V
AUDIO L
SELECT
AUDIO R
SEL
HD/CSYNC IN
HD/CSYNC IN-R
1200SEL
HD/CSYNC OUT
VD IN
VD IN-R
S OUT
S IN1
S IN2
RGB/VIDEO IN
RGB/VIDEO OUT
CVIDEO/YC IN
CVIDEO/YC OUT
R/CVIDEO
R-Y/R
G/Y
Y/G
B/C
B-Y/B
Q1 2SC2120 CLAMP
Q2 2SC2120 CLAMP
IC5 SN74HC4066 SYNC SW
IC6 μPC319C AUDIO AMP
IC9,IC10 HD/VD BUFFER
IC9 (1/4) SN74HC08
IC10 (1/4) SN74HC86
IC9 (3/4) SN74HC08
IC10 (4/4) SN74HC86
IC10 (3/4) SN74HC86
IC10 (2/4) SN74HC86
IC9 (2/4) SN74HC08
IC9 (4/4) SN74HC08
IC8 (1/2) TL082 PULSE GENERATOR
Q3 2SA1175
IC7 HD74HC123 PULSE GENERATOR
IC11 (1/4) SN74HC132
IC11 (3/4) SN74HC132
IC11 (4/4) SN74HC132
IC11 (2/4) SN74HC132
IC12 PST523 RESET
IC13 SN75452BP AUDIO MUTE
IC4 SN75453BP MODE DET
Q10 2SC2120 HD BUFFER
Q11 2SC2120 VD BUFF
Q4 2SA950 VD BUFFER
Q6 2SC2120 CLAMP
Q7 2SA950 VD BUFFER
Q8 2SC2120 CLAMP
Q9 2SA950 HD BUFFER
Q5 2SA950 HD BUFFER
SW1 SSJ-022M
SW2 SSJ-022M
D24 RD5.6E
J2 B4B-EH
J109 VD
J110 HD
J105
S IN 2
S IN 1
J104 R
J103 L
RL7 A-12W-K
J101 GND R G GND
J1 B8B-EH
J102 VIDEO
J106 R
J107 G
J108 B
IC1 4C0040 VIDEO BUFFER
IC2 4C0040 VIDEO BUFFER
IC3 4C0040 VIDEO BUFFER
IN VCC GND OUT VEE
RL1 A-12W-K
RL2 A-12W-K
RL3 A-12W-K
RL4 A-12W-K
RL5 A-12W-K
RL6 A-12W-K
D17 1N4001 PROTECT
D7 1N4001
1S1588 PROTECT
①
②
③
④
⑤
⑥
A
(MONITOR OUT)


7
8
9
10
11
12
13
14
IC9, IC10 HD/VD BUFFER
IC9 (1/4) SN74HC08
IC10 (1/4) SN74HC86
IC9 (3/4) SN74HC08
IC10 (4/4) SN74HC86
IC9 (2/4) SN74HC08
IC10 (2/4) SN74HC86
IC10 (3/4) SN74HC86
IC9 (4/4) SN74HC08
IC8 (1/2) TL082 PULSE GENERATOR
Q3 2SA1175
IC7 HD74HC123 PULSE GENERATOR
IC11 (3/4) SN74HC132
IC11 (4/4) SN74HC132
IC11 (2/4) SN74HC132
IC12 PST523 RESET
IC13 SN75452BP AUDIO MUTE
SW1 SSJ-022M
SW2 SSJ-022M
Q6 2SC2120 CLAMP
Q7 2SA950 VD BUFFER
Q4 2SA950 VD BUFFER
Q8 2SC2120 CLAMP
Q9 2SA950 HD BUFFER
Q5 2SA950 HD BUFFER
D19 1S1588 PROTECT
D20 1S1588 PROTECT
D22 1S1588 PROTECT
D23 1S1588
D18 1S1588
D21 1S1588
D16 1S1588 PROTECT
D24 RD5.6E
RL7 A-12W-K
J2 B4B-EH
J109 VD
J110 HD
J105
GND
S IN 2
S IN 1
GND
J104 R
J103 L
J101
GND
R
G
GND
J1 B8B-EH
J102 VIDEO
J106 R
J107 G
J108 B
+12VA
+12V
+5V
A
(MONITOR OUT)

M2 [MOTHER 2]

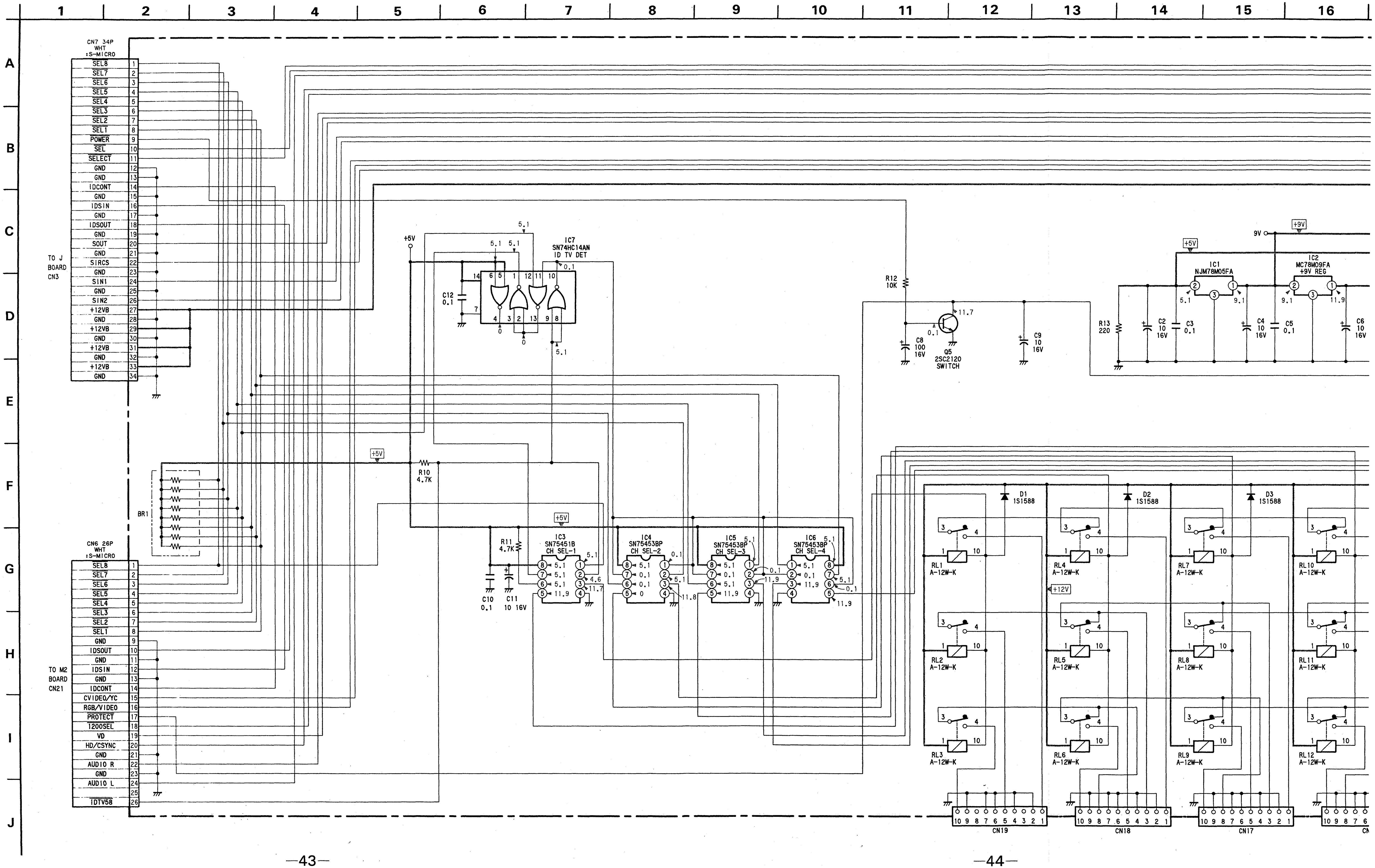
—M2 Board—

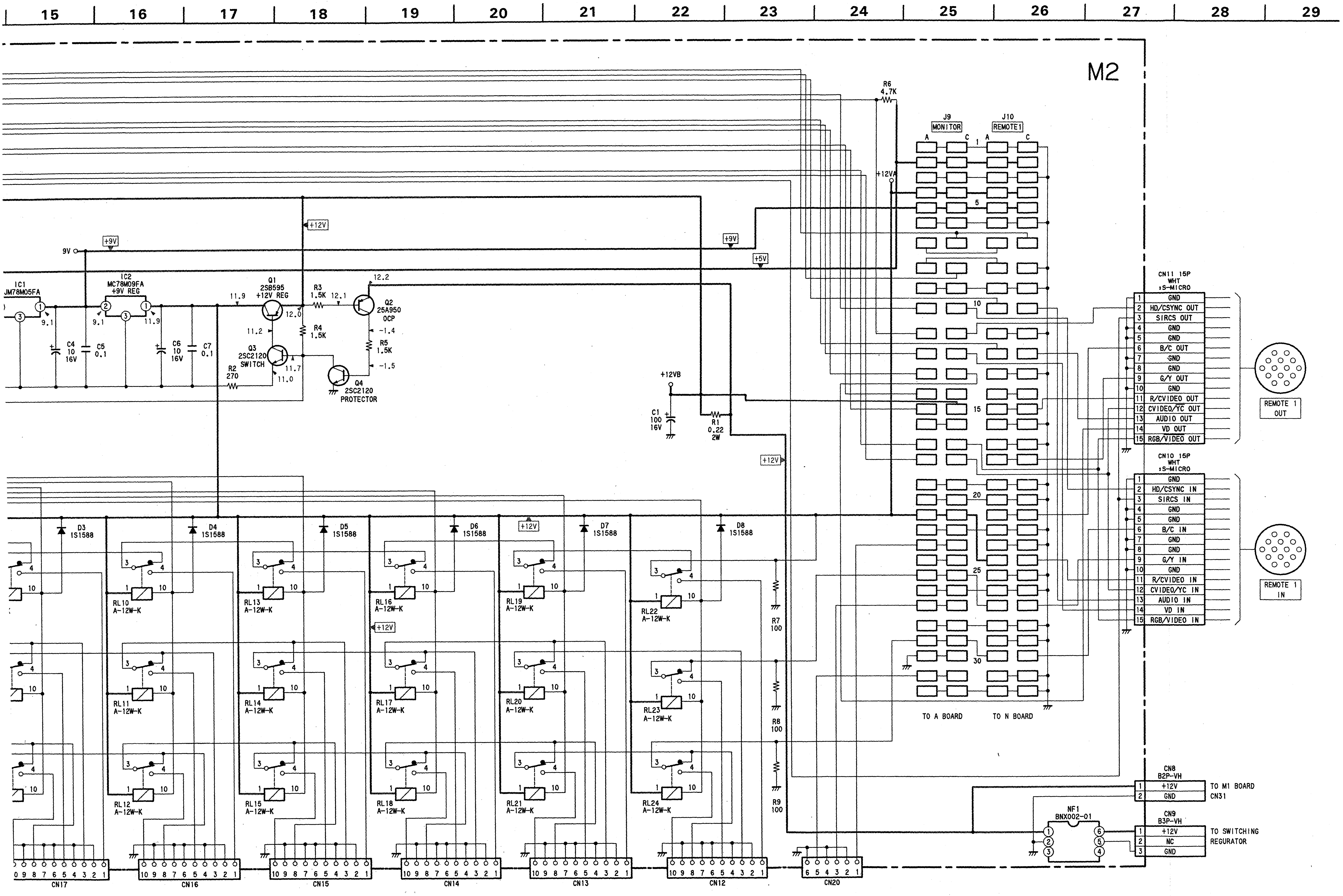

A
B
1
2
3
4
5
J10
J9
CN11
CN10
CN9
CN8
CN6
CN20
SONY M2
9-900-994-01 P/N510239A

- ▨ : Pattern from the side which enables seeing.
- ░ : Pattern of the rear side.

—M2 BOARD—

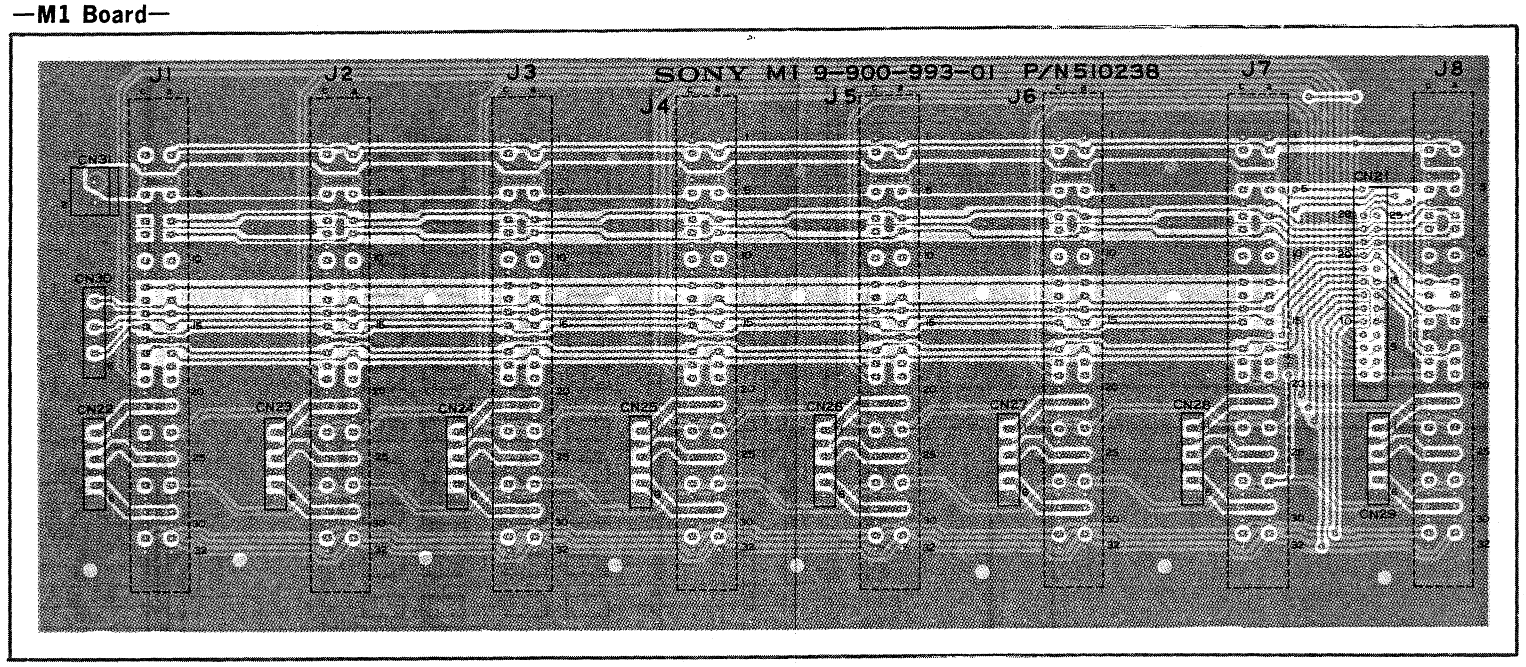
IC	
IC1	A-1
IC2	A-1
IC3	B-5
IC4	B-4
IC5	B-4
IC6	B-4
IC7	A-4
TRANSISTOR	
Q1	B-1
Q2	B-1
Q3	B-1
Q4	B-1
Q5	A-2
DIODE	
D1	B-5
D2	B-5
D3	B-4
D4	B-4
D5	B-4
D6	B-4
D7	B-3
D8	B-3


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
CN7 34P WHT :S-MICRO
SEL8 1
SEL7 2
SEL6 3
SEL5 4
SEL4 5
SEL3 6
SEL2 7
SEL1 8
POWER 9
SEL 10
SELECT 11
GND 12
GND 13
IDCONT 14
GND 15
IDSIN 16
GND 17
IDSOUT 18
GND 19
SOUT 20
GND 21
SIRCS 22
GND 23
SIN1 24
GND 25
SIN2 26
+12VB 27
GND 28
+12VB 29
GND 30
+12VB 31
GND 32
+12VB 33
GND 34
TO J BOARD CN3
+5V
5.1
5.1 5.1
IC7 SN74HC14AN ID TV DET
0.1
14 6 5 1 12 11 10
7
4 3 2 13 9 8
C12 0.1
0
0
5.1
+5V
R10 4.7K
BR1
+5V
R11 4.7K
C10 0.1
C11 10 16V
IC3 SN75451B CH SEL-1
IC4 SN75453BP CH SEL-2
IC5 SN75453BP CH SEL-3
IC6 SN75453BP CH SEL-4
5.1
4.6
11.7
11.9
0.1
0
11.8
11.9
5.1
0.1
CN6 26P WHT :S-MICRO
SEL8 1
SEL7 2
SEL6 3
SEL5 4
SEL4 5
SEL3 6
SEL2 7
SEL1 8
GND 9
IDSOUT 10
GND 11
IDSIN 12
GND 13
IDCONT 14
CVIDEO/YC 15
RGB/VIDEO 16
PROTECT 17
1200SEL 18
VD 19
HD/CSYNC 20
GND 21
AUDIO R 22
GND 23
AUDIO L 24
25
IDTV58 26
TO M2 BOARD CN21
R12 10K
11.7
0.1
C8 100 16V
Q5 2SC2120 SWITCH
C9 10 16V
9V
+9V
+5V
IC1 NJM78M05FA
IC2 MC78M09FA +9V REG
5.1
9.1
9.1
11.9
R13 220
C2 10 16V
C3 0.1
C4 10 16V
C5 0.1
C6 10 16V
D1 1S1588
D2 1S1588
D3 1S1588
+12V
RL1 A-12W-K
RL2 A-12W-K
RL3 A-12W-K
RL4 A-12W-K
RL5 A-12W-K
RL6 A-12W-K
RL7 A-12W-K
RL8 A-12W-K
RL9 A-12W-K
RL10 A-12W-K
RL11 A-12W-K
RL12 A-12W-K
3 4 1 10
10 9 8 7 6 5 4 3 2 1
CN19
CN18
CN17
CN

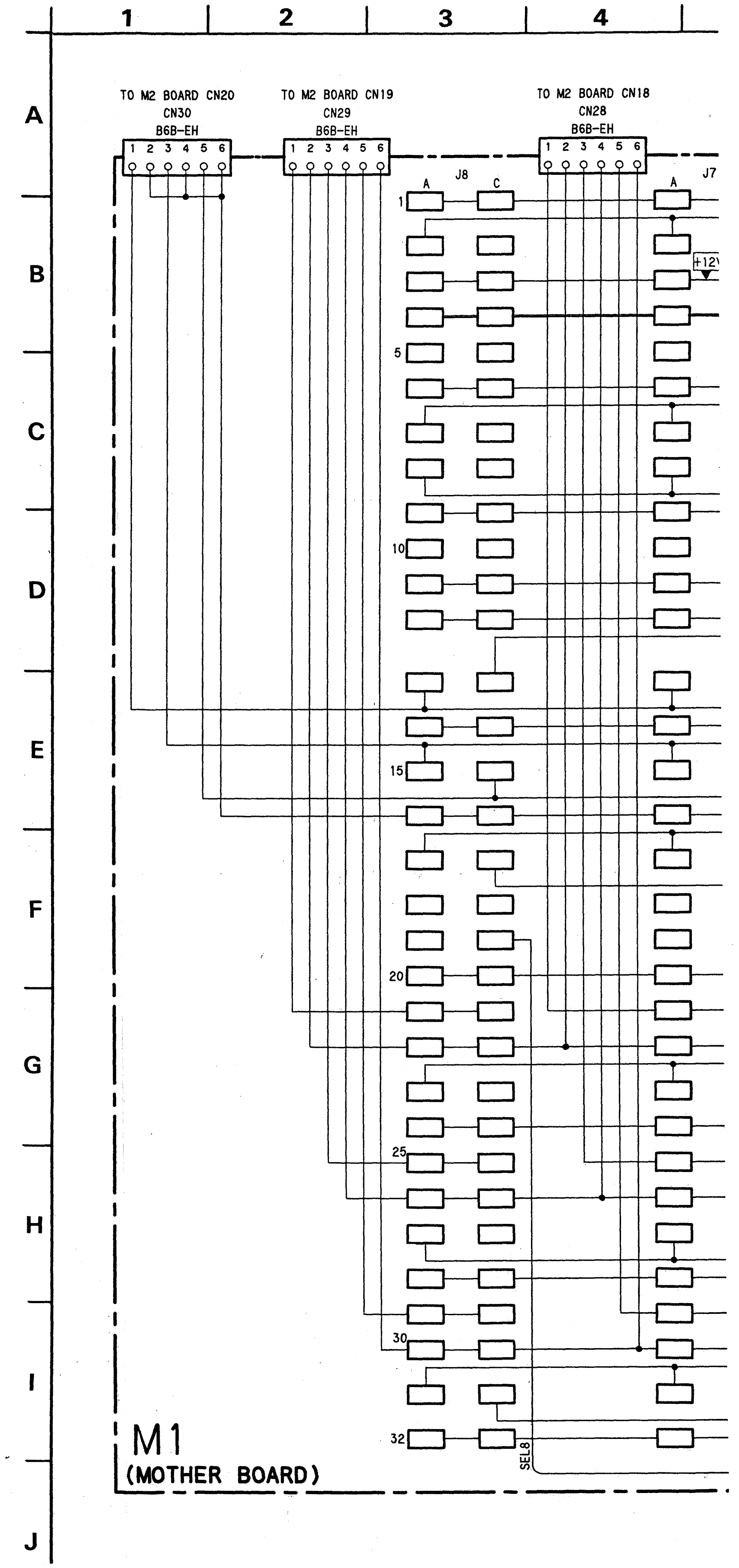

15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
M2
R6 4.7K
J9 MONITOR
J10 REMOTE1
A C A C
+12VA
+12V
+9V
+5V
9V
IC1 JM78M05FA
IC2 MC78M09FA +9V REG
Q1 2SB595 +12V REG
R3 1.5K
Q2 2SA950 OCP
Q3 2SC2120 SWITCH
Q4 2SC2120 PROTECTOR
R2 270
R4 1.5K
R5 1.5K
C4 10 16V
C5 0.1
C6 10 16V
C7 0.1
+12VB
C1 100 16V
R1 0.22 2W
D3 1S1588
D4 1S1588
D5 1S1588
D6 1S1588
D7 1S1588
D8 1S1588
RL10 A-12W-K
RL11 A-12W-K
RL12 A-12W-K
RL13 A-12W-K
RL14 A-12W-K
RL15 A-12W-K
RL16 A-12W-K
RL17 A-12W-K
RL18 A-12W-K
RL19 A-12W-K
RL20 A-12W-K
RL21 A-12W-K
RL22 A-12W-K
RL23 A-12W-K
RL24 A-12W-K
R7 100
R8 100
R9 100
TO A BOARD
TO N BOARD
CN11 15P WHT :S-MICRO
1 GND
2 HD/CSYNC OUT
3 SIRCS OUT
4 GND
5 GND
6 B/C OUT
7 GND
8 GND
9 G/Y OUT
10 GND
11 R/CVIDEO OUT
12 CVIDEO/YC OUT
13 AUDIO OUT
14 VD OUT
15 RGB/VIDEO OUT
REMOTE 1 OUT
CN10 15P WHT :S-MICRO
1 GND
2 HD/CSYNC IN
3 SIRCS IN
4 GND
5 GND
6 B/C IN
7 GND
8 GND
9 G/Y IN
10 GND
11 R/CVIDEO IN
12 CVIDEO/YC IN
13 AUDIO IN
14 VD IN
15 RGB/VIDEO IN
REMOTE 1 IN
CN8 B2P-VH
1 +12V
2 GND
TO M1 BOARD CN31
NF1 BNX002-01
CN9 B3P-VH
1 +12V
2 NC
3 GND
TO SWITCHING REGURATOR
CN17
CN16
CN15
CN14
CN13
CN12
CN20

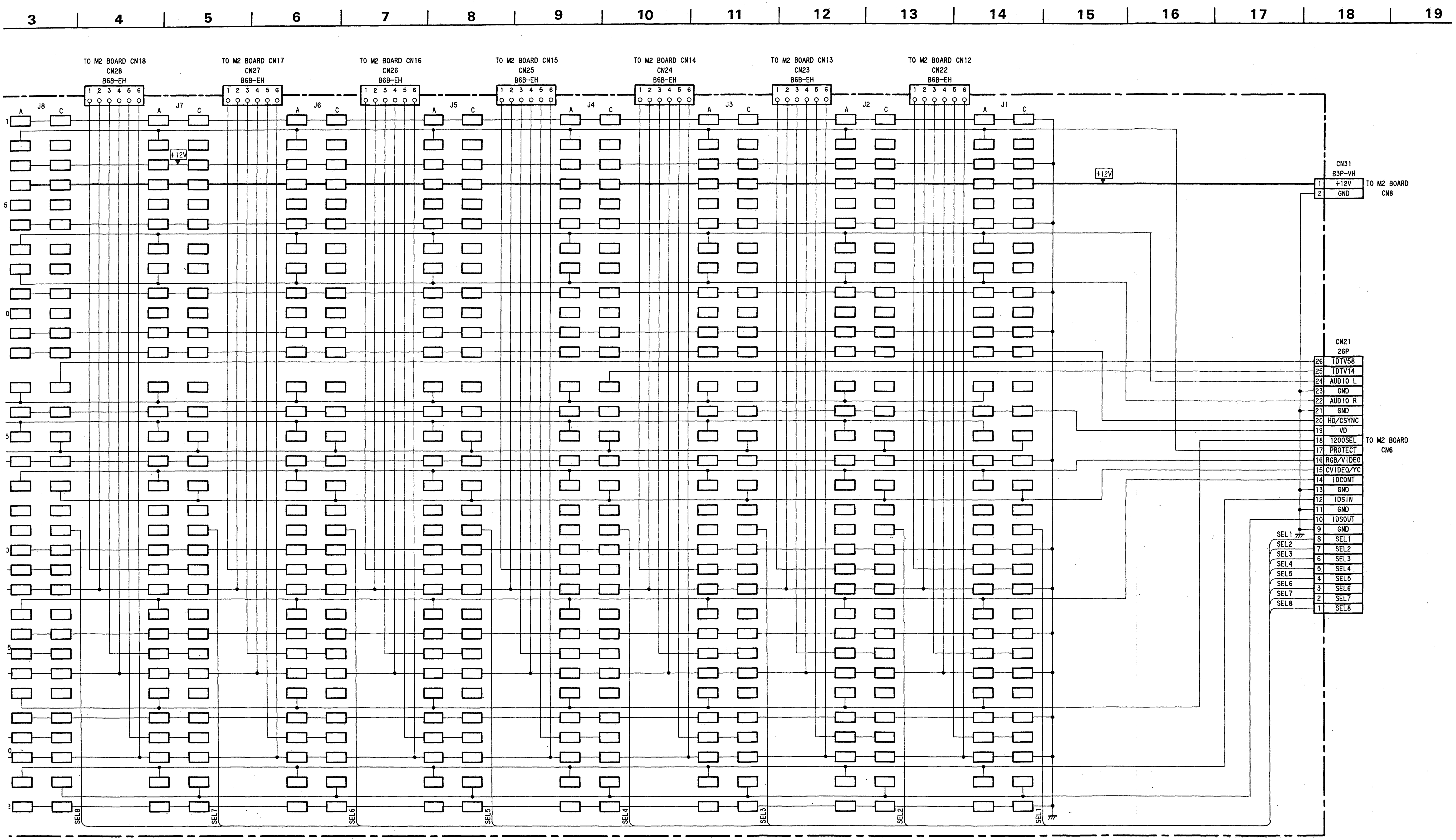
M1 [MOTHER 1]

—M1 Board—


SONY M1 9-900-993-01 P/N510238
J1
J2
J3
J4
J5
J6
J7
J8
CN3
CN30
CN21
CN22
CN23
CN24
CN25
CN26
CN27
CN28
CN29

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.


1
2
3
4
A
B
C
D
E
F
G
H
I
J
TO M2 BOARD CN20
CN30
B6B-EH
TO M2 BOARD CN19
CN29
B6B-EH
TO M2 BOARD CN18
CN28
B6B-EH
1 2 3 4 5 6
A
J8
C
A
J7
+12V
1
5
10
15
20
25
30
32
SEL8
M1
(MOTHER BOARD)

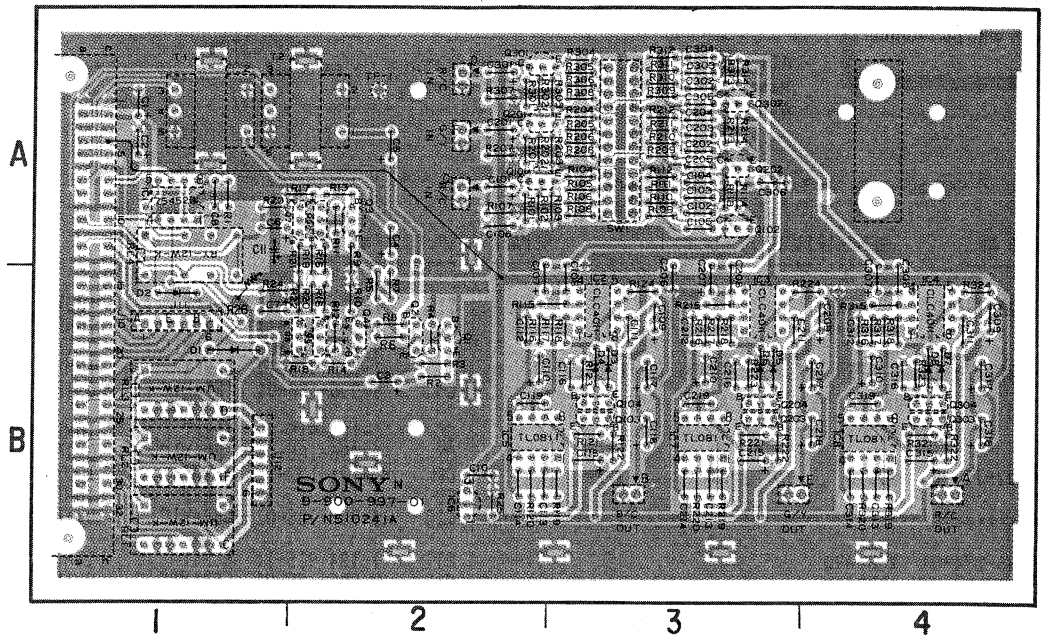

3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
TO M2 BOARD CN18
CN28
B6B-EH
TO M2 BOARD CN17
CN27
B6B-EH
TO M2 BOARD CN16
CN26
B6B-EH
TO M2 BOARD CN15
CN25
B6B-EH
TO M2 BOARD CN14
CN24
B6B-EH
TO M2 BOARD CN13
CN23
B6B-EH
TO M2 BOARD CN12
CN22
B6B-EH
1 2 3 4 5 6
J8
J7
J6
J5
J4
J3
J2
J1
A
C
+12V
CN31
B3P-VH
1 +12V
2 GND
TO M2 BOARD
CN8
CN21
26P
26 IDTV58
25 IDTV14
24 AUDIO L
23 GND
22 AUDIO R
21 GND
20 HD/CSYNC
19 VD
18 1200SEL
17 PROTECT
16 RGB/VIDEO
15 CVIDEO/YC
14 IDCONT
13 GND
12 IDSIN
11 GND
10 IDSOUT
9 GND
8 SEL1
7 SEL2
6 SEL3
5 SEL4
4 SEL5
3 SEL6
2 SEL7
1 SEL8
TO M2 BOARD
CN6
SEL1
SEL2
SEL3
SEL4
SEL5
SEL6
SEL7
SEL8
1
5
10
15
20
25
30
32

N [REMOTE OUT] **F** [LINE FILTER] **X** [MODE SELECT SWITCH]

—N BOARD—

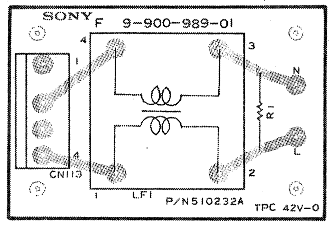
IC	
IC1	A-1
IC2	B-3
IC3	B-3
IC4	B-4
IC5	B-2
IC6	B-2
IC7	B-3
IC8	B-4
TRANSISTOR	
Q1	B-2
Q2	B-2
Q3	A-2
Q4	B-2
Q5	A-2
Q6	B-2
Q7	A-2
Q8	B-2
Q101	A-2
Q102	A-3
Q103	B-2
Q104	B-2
Q201	A-2
Q202	A-3
Q203	B-3
Q204	B-3
Q301	A-2
Q302	A-3
Q303	B-4
Q304	B-4
DIODE	
D1	B-1
D2	B-1
D3	B-3
D4	B-3
D5	B-3
D6	B-3
D7	B-4
D8	B-4

—N Board—

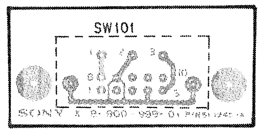

A
B
1
2
3
4
SONY N
9-900-997-01
P/N510241A
TL081
B/C OUT
G/Y OUT
R/C OUT

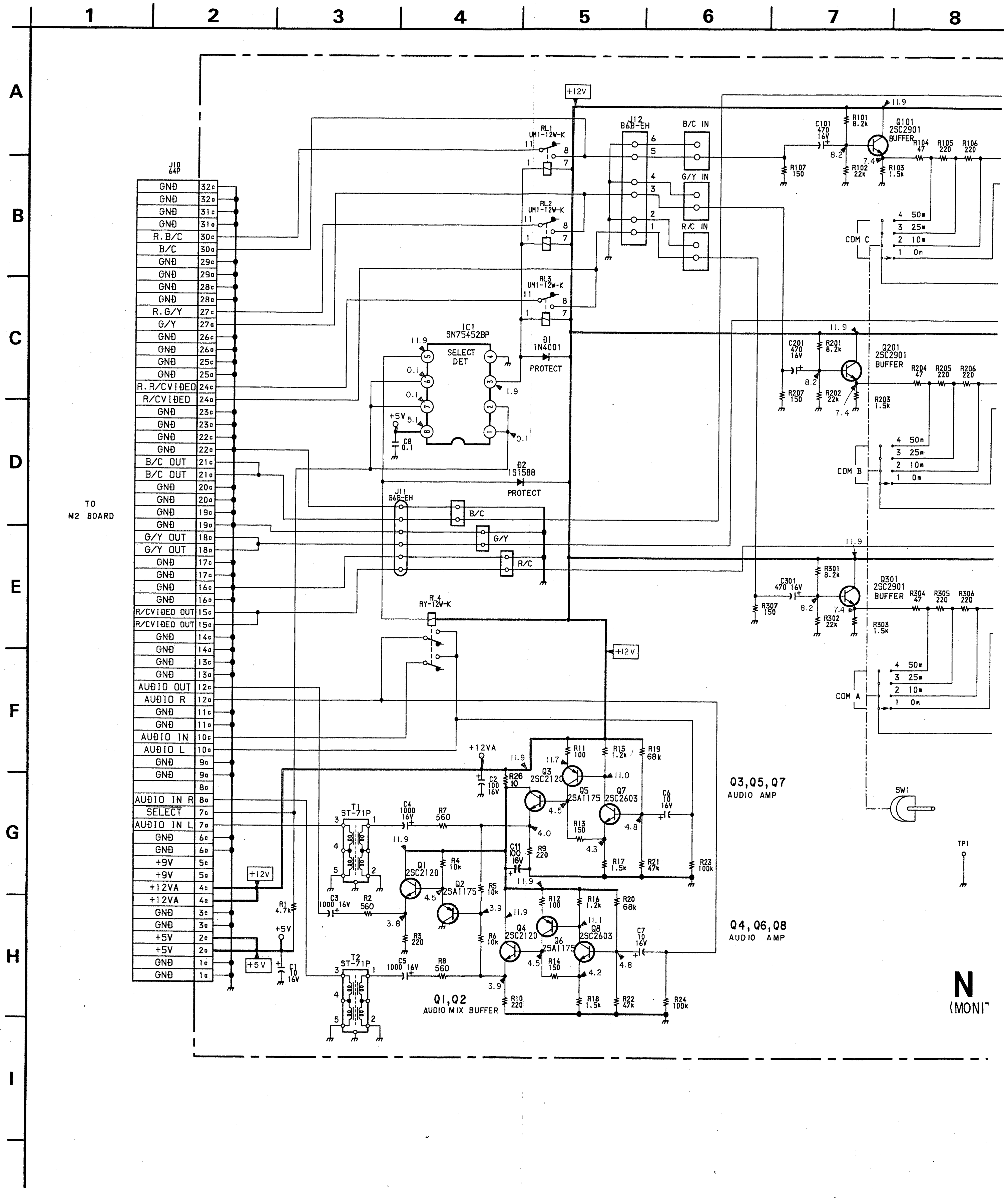
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

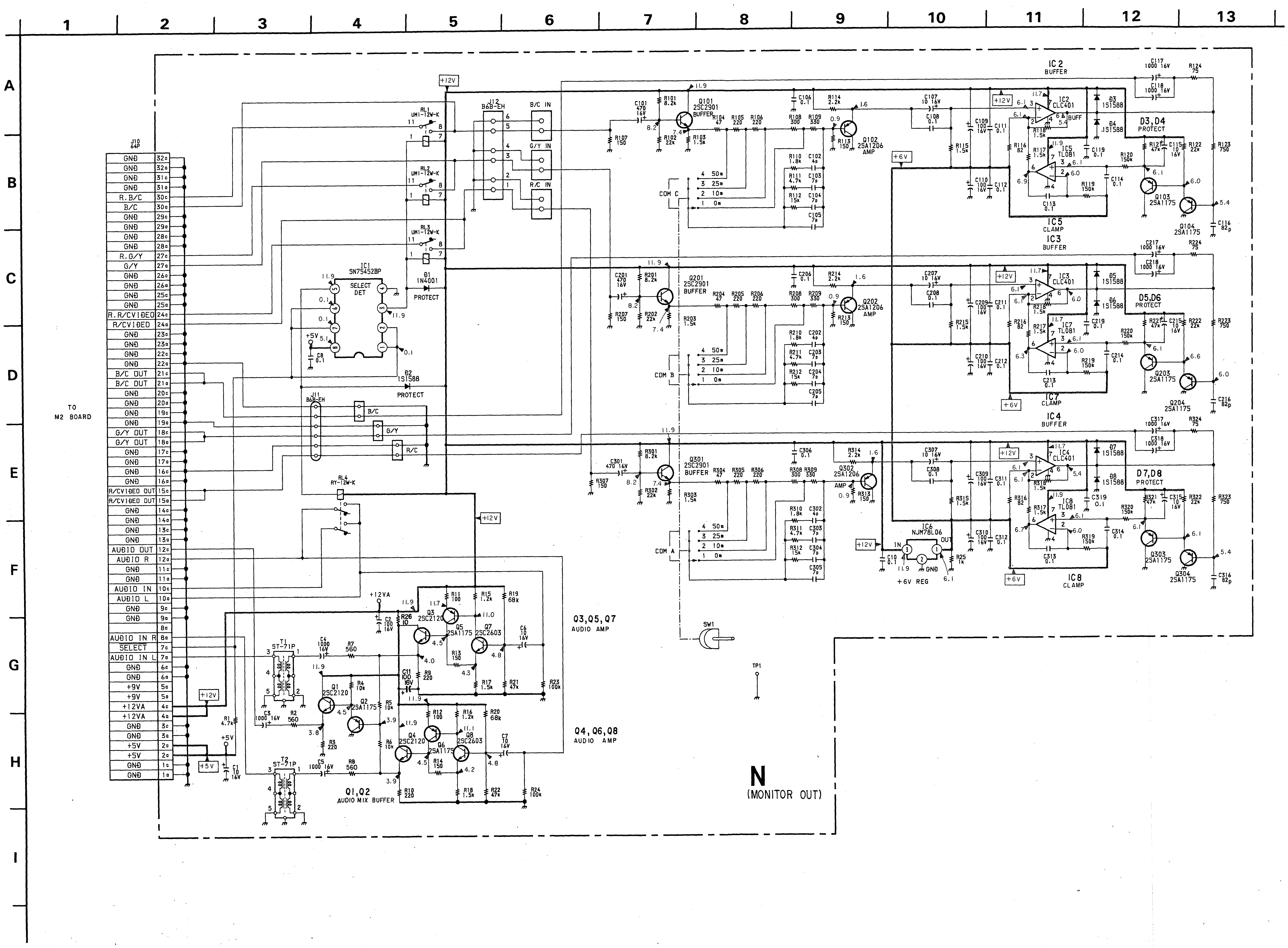
—F Board—


SONY F 9-900-989-01
CN113
LF1
P/N510232A
TPC 42V-0
N
L
1
2
3
4

—X Board—

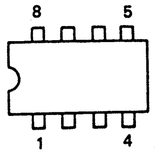

SW101
SONY X 9-900-999-01


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J10
64P
GND 32c
GND 32a
GND 31c
GND 31a
R.B/C 30c
B/C 30a
GND 29c
GND 29a
GND 28c
GND 28a
R.G/Y 27c
G/Y 27a
GND 26c
GND 26a
GND 25c
GND 25a
R.R/CVIDEO 24c
R/CVIDEO 24a
GND 23c
GND 23a
GND 22c
GND 22a
B/C OUT 21c
B/C OUT 21a
GND 20c
GND 20a
GND 19c
GND 19a
G/Y OUT 18c
G/Y OUT 18a
GND 17c
GND 17a
GND 16c
GND 16a
R/CVIDEO OUT 15c
R/CVIDEO OUT 15a
GND 14c
GND 14a
GND 13c
GND 13a
AUDIO OUT 12c
AUDIO R 12a
GND 11c
GND 11a
AUDIO IN 10c
AUDIO L 10a
GND 9c
GND 9a
8c
AUDIO IN R 8a
SELECT 7c
AUDIO IN L 7a
GND 6c
GND 6a
+9V 5c
+9V 5a
+12VA 4c
+12VA 4a
GND 3c
GND 3a
+5V 2c
+5V 2a
GND 1c
GND 1a
TO M2 BOARD
+12V
RL1 UM1-12W-K
RL2 UM1-12W-K
RL3 UM1-12W-K
RL4 RY-12W-K
J12 B6B-EH
B/C IN
G/Y IN
R/C IN
IC1 SN75452BP SELECT DET
D1 1N4001 PROTECT
D2 1S1588 PROTECT
C8 0.1
J11 B6B-EH
B/C
G/Y
R/C
C101 470 16V
R101 8.2k
Q101 2SC2901 BUFFER
R104 47
R105 220
R106 220
R107 150
R102 22k
R103 1.5k
COM C
4 50Ω
3 25Ω
2 10Ω
1 0Ω
C201 470 16V
R201 8.2k
Q201 2SC2901 BUFFER
R204 47
R205 220
R206 220
R207 150
R202 22k
R203 1.5k
COM B
C301 470 16V
R301 8.2k
Q301 2SC2901 BUFFER
R304 47
R305 220
R306 220
R307 150
R302 22k
R303 1.5k
COM A
+12VA
C2 100 16V
R26 10
R11 100
R15 1.2k
R19 68k
Q3 2SC2120
Q5 2SA1175
Q7 2SC2603
C6 10 16V
R13 150
R17 1.5k
R21 47k
R23 100k
Q3,Q5,Q7 AUDIO AMP
SW1
TP1
T1 ST-71P
C4 1000 16V
R7 560
C3 1000 16V
R2 560
R1 4.7k
+5V
C1 10 16V
Q1 2SC2120
Q2 2SA1175
R4 10k
R5 10k
R3 220
R6 10k
C11 100 16V
R9 220
R12 100
R16 1.2k
R20 68k
Q4 2SC2120
Q6 2SA1175
Q8 2SC2603
C7 10 16V
R14 150
R18 1.5k
R22 47k
R24 100k
Q4,Q6,Q8 AUDIO AMP
T2 ST-71P
C5 1000 16V
R8 560
R10 220
Q1,Q2 AUDIO MIX BUFFER
N (MONI


1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I
TO M2 BOARD
J10 64P
GND 32c
GND 32a
GND 31c
GND 31a
R.B/C 30c
B/C 30a
GND 29c
GND 29a
GND 28c
GND 28a
R.G/Y 27c
G/Y 27a
GND 26c
GND 26a
GND 25c
GND 25a
R.R/CVIDEO 24c
R/CVIDEO 24a
GND 23c
GND 23a
GND 22c
GND 22a
B/C OUT 21c
B/C OUT 21a
GND 20c
GND 20a
GND 19c
GND 19a
G/Y OUT 18c
G/Y OUT 18a
GND 17c
GND 17a
GND 16c
GND 16a
R/CVIDEO OUT 15c
R/CVIDEO OUT 15a
GND 14c
GND 14a
GND 13c
GND 13a
AUDIO OUT 12c
AUDIO R 12a
GND 11c
GND 11a
AUDIO IN 10c
AUDIO L 10a
GND 9c
GND 9a
8c
AUDIO IN R 8a
SELECT 7c
AUDIO IN L 7a
GND 6c
GND 6a
+9V 5c
+9V 5a
+12VA 4c
+12VA 4a
GND 3c
GND 3a
+5V 2c
+5V 2a
GND 1c
GND 1a
RL1 UM1-12W-K
RL2 UM1-12W-K
RL3 UM1-12W-K
RL4 RY-12W-K
IC1 SN75452BP SELECT DET
D1 1N4001 PROTECT
D2 1S1588 PROTECT
J12 B6B-EH
J11 B6B-EH
B/C IN
G/Y IN
R/C IN
B/C
G/Y
R/C
+12V
+5V
+12VA
+6V
T1 ST-71P
T2 ST-71P
Q1,Q2 AUDIO MIX BUFFER
Q3,Q5,Q7 AUDIO AMP
Q4,Q6,Q8 AUDIO AMP
Q1 2SC2120
Q2 2SA1175
Q3 2SC2120
Q4 2SC2120
Q5 2SA1175
Q6 2SA1175
Q7 2SC2603
Q8 2SC2603
Q101 2SC2901 BUFFER
Q102 2SA1206 AMP
Q201 2SC2901 BUFFER
Q202 2SA1206 AMP
Q301 2SC2901 BUFFER
Q302 2SA1206 AMP
Q103 2SA1175
Q104 2SA1175
Q203 2SA1175
Q204 2SA1175
Q303 2SA1175
Q304 2SA1175
IC2 BUFFER CLC401
IC3 BUFFER CLC401
IC4 BUFFER CLC401
IC5 CLAMP TL081
IC7 CLAMP TL081
IC8 CLAMP TL081
IC6 NJM78L06 +6V REG
D3,D4 PROTECT
D5,D6 PROTECT
D7,D8 PROTECT
1S1588
COM A
COM B
COM C
4 50m
3 25m
2 10m
1 0m
SW1
TP1
N
(MONITOR OUT)

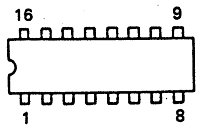
4-5. SEMICONDUCTORS

CAT59C11P
HD75452P
NJM082D
SN75451BP
SN75452BP
SN75453BP
TL081CP
TL082ACP



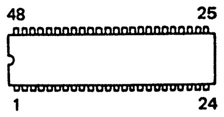
(TOP VIEW)

HD74HC123P
MC74HC123N
SN74HC123N
SN74HC148N
SN74LS123N
TC74HC123AP
TC74HC148P



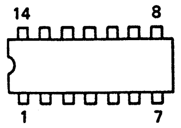
(TOP VIEW)

MB8855-1393N



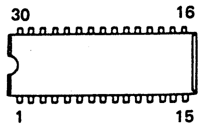
(TOP VIEW)

MC74HC132N
MC74HC4066N
SN74HC08AN
SN74HC10AN
SN74HC14AN
SN74HC27AN
SN74HC30AN
SN74HC86AN
SN74HC132AN
SN74HC4066N
µPC319C



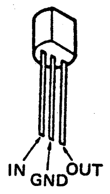
(TOP VIEW)

M50461-157SP

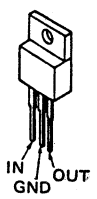


(TOPVIEW)

NJM78L06A
PST523D



NJM78M05FA
RC78M05FA
RC78M09FA



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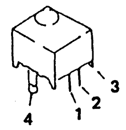
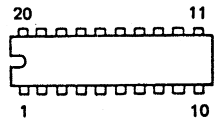
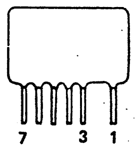


SN74LS240N
SN74LS244N



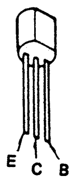
(TOP VIEW)

4C0040

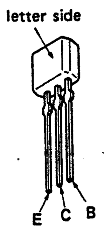


MARKING SIDE VIEW

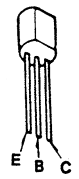
2SA950
2SC2120-Y
2SC2120-O



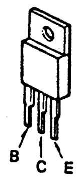
2SA1175F-F
2SA1175-HFE



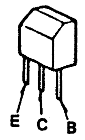
2SA1206K-1
2SC2901-K



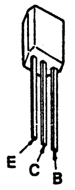
2SB595



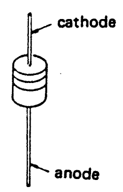
2SB734-34



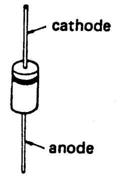
2SC2603



RD5.1ES-B2



10E2
1N4001
1S1558



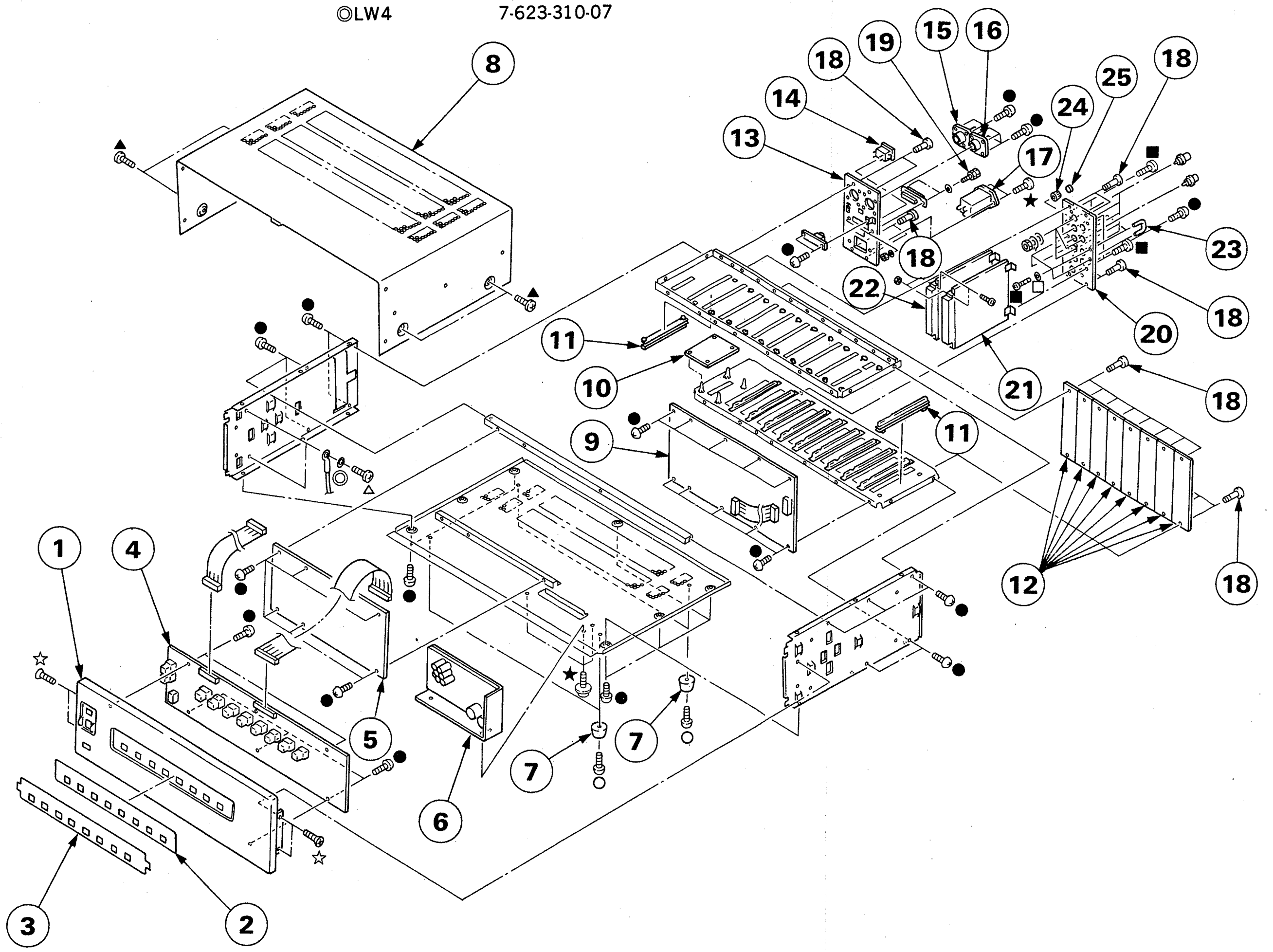
SECTION 5
EXPLODED VIEW

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

●+BV3×8	7-685-646-89	○+P M4×12	7-682-163-01
■+P M2.6×6	7-621-284-20	□SW2.6	7-623-207-22
▲+B M3×8	7-682-548-09	△+P M4×6	7-682-160-01
★+P M3×6	7-682-147-01	☆+K3×8	7-685-248-09
		◎LW4	7-623-310-07



Ref. No.	Part No.	Description	Remark
1	X-4030-300-1	PANEL ASSY, FRONT	
2	4-035-834-01	SHEET	
3	4-035-776-01	SHEET, INPUT	
4	* 9-902-383-01	J MOUNT	
5	* 9-902-378-01	M2 MOUNT	
6	⚠9-902-540-01	REGULATOR, SWITCHING	
7	3-701-192-03	FOOT B2 RUBBER	
8	* 4-035-741-01	COVER	
9	* 9-902-377-01	M1 MOUNT	
10	9-996-886-01	F BOARD	
11	* 4-360-309-11	BOARD SUPPORT	
12	4-035-771-01	PLATE BLIND	
13	* 4-035-777-01	PANEL, AC IN	
14	⚠9-902-539-01	SWITCH, MAIN POWER	
15	9-996-162-01	CONNECTOR ASSY, 14P (ROUND TYPE) (MALE)	
16	9-996-161-01	CONNECTOR ASSY, 14P (ROUND TYPE) (FEMALE)	
17	⚠9-902-538-01	INLET, AC	
18	4-396-203-01	SCREW (+B M3X12) PREVENTION	
19	9-902-374-01	SCREW (D-Sub)	
20	* 4-035-778-01	PANEL, MONITOR OUT	
21	* 9-902-387-01	A MOUNT	
22	* 9-902-388-01	N MOUNT	
23	4-032-851-01	HANDLE	
24	9-902-385-01	KNOB	
25	9-902-386-01	CAP (GRAY)	

F

NOTE:

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speci

REF.NO

R1

*****

*****

CN21
CN22
CN23
CN24
CN25

CN26
CN27
CN28
CN29
CN30

CN31
J1
J2
J3
J4

J5
J6
J7
J8

****

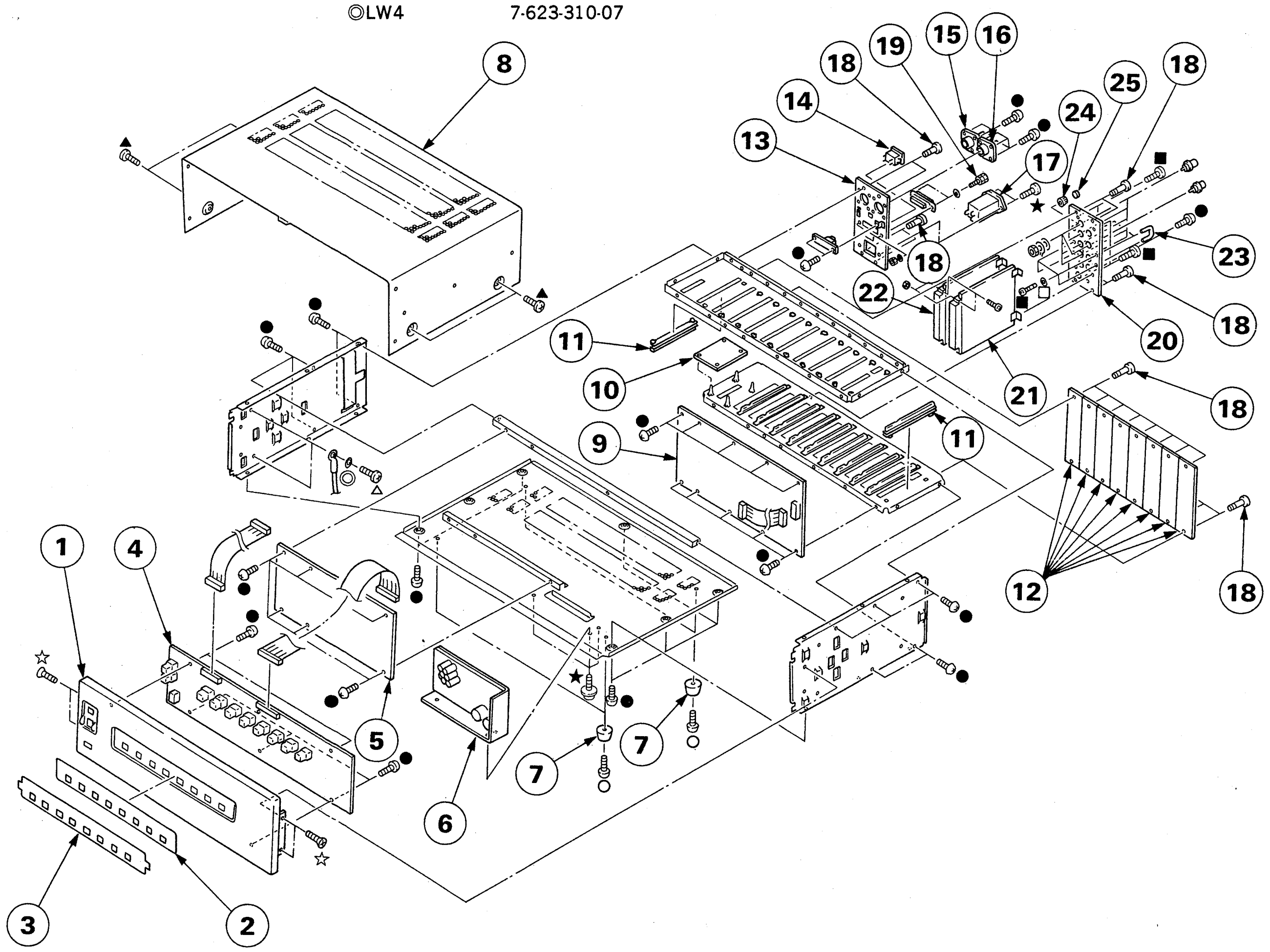
BR1

SECTION 5
EXPLODED VIEW

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

●+BV3×8	7-685-646-89	○+P M4×12	7-682-163-01
■+P M2.6×6	7-621-284-20	□SW2.6	7-623-207-22
▲+B M3×8	7-682-548-09	△+P M4×6	7-682-160-01
★+P M3×6	7-682-147-01	☆+K3×8	7-685-248-09
		◎LW4	7-623-310-07



Ref. No.	Part No.	Description	Remark
1	X-4030-300-1	PANEL ASSY, FRONT	
2	4-035-834-01	SHEET	
3	4-035-776-01	SHEET, INPUT	
4	* 9-902-383-01	J MOUNT	
5	* 9-902-378-01	M2 MOUNT	
6	⚠9-902-540-01	REGULATOR, SWITCHING	
7	3-701-192-03	FOOT B2 RUBBER	
8	* 4-035-741-01	COVER	
9	* 9-902-377-01	M1 MOUNT	
10	9-996-886-01	F BOARD	
11	* 4-360-309-11	BOARD SUPPORT	
12	4-035-771-01	PLATE BLIND	
13	* 4-035-777-01	PANEL, AC IN	

Ref. No.	Part No.	Description	Remark
14	⚠9-902-539-01	SWITCH, MAIN POWER	
15	9-996-162-01	CONNECTOR ASSY, 14P (ROUND TYPE) (MALE)	
16	9-996-161-01	CONNECTOR ASSY, 14P (ROUND TYPE) (FEMALE)	
17	⚠9-902-538-01	INLET, AC	
18	4-396-203-01	SCREW (+B M3X12) PREVENTION	
19	9-902-374-01	SCREW (D-Sub)	
20	* 4-035-778-01	PANEL, MONITOR OUT	
21	* 9-902-387-01	A MOUNT	
22	* 9-902-388-01	N MOUNT	
23	4-032-851-01	HANDLE	
24	9-902-385-01	KNOB	
25	9-902-386-01	CAP (GRAY)	

F X M1 M2

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*9-996-886-01	F BOARD *******	
	1-421-776-11	FILTER LFT EFI-18D606 (LINE FILTER)	
		<RESISTOR>	
R1	1-202-723-00	SOLID 2.2M 1/2W	
**			
	*9-996-174-01	X BOARD *******	
	9-996-173-01	SWITCH, SELECT	
**			
	*9-902-377-01	M1 BOARD ********	
		<CONNECTOR>	
CN21	*9-996-198-01	PIN HEADER	
CN22	*1-564-509-11	PLUG, CONNECTOR 6P	
CN23	*1-564-509-11	PLUG, CONNECTOR 6P	
CN24	*1-564-509-11	PLUG, CONNECTOR 6P	
CN25	*1-564-509-11	PLUG, CONNECTOR 6P	
CN26	*1-564-509-11	PLUG, CONNECTOR 6P	
CN27	*1-564-509-11	PLUG, CONNECTOR 6P	
CN28	*1-564-509-11	PLUG, CONNECTOR 6P	
CN29	*1-564-509-11	PLUG, CONNECTOR 6P	
CN30	*1-564-509-11	PLUG, CONNECTOR 6P	
CN31	*	CONNECTOR B2P-VH	
J1	*1-568-985-11	CONNECTOR, FEMALE 64P	
J2	*1-568-985-11	CONNECTOR, FEMALE 64P	
J3	*1-568-985-11	CONNECTOR, FEMALE 64P	
J4	*1-568-985-11	CONNECTOR, FEMALE 64P	
J5	*1-568-985-11	CONNECTOR, FEMALE 64P	
J6	*1-568-985-11	CONNECTOR, FEMALE 64P	
J7	*1-568-985-11	CONNECTOR, FEMALE 64P	
J8	*1-568-985-11	CONNECTOR, FEMALE 64P	
**			
	*9-902-378-01	M2 BOARD COMPLETE *****************	
		<RESISTOR BLOCK>	
BR1	1-235-977-11	RESISTOR BLOCK M09-1-472J	
		<CAPACITOR>	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1	1-124-122-11	ELECT	100MF	20%	50V
C2	1-124-915-11	ELECT	10MF	20%	63V
C3	9-996-186-01	CERAMIC	0.1PF		50V
C4	1-124-915-11	ELECT	10MF	20%	63V
C5	9-996-186-01	CERAMIC	0.1PF		50V
C6	1-124-915-11	ELECT	10MF	20%	63V
C7	9-996-186-01	CERAMIC	0.1PF		50V
C8	1-124-122-11	ELECT	100MF	20%	50V
C9	1-124-915-11	ELECT	10MF	20%	63V
C10	9-996-186-01	CERAMIC	0.1PF		50V
C11	1-124-915-11	ELECT	10MF	20%	63V
C12	9-996-186-01	CERAMIC	0.1PF		50V
		<CONNECTOR>			
CN6	*9-996-198-01	PIN HEADER 26P			
CN7	*9-902-390-01	PIN HEADER 34P			
CN8	*	PLUG, CONNECTOR B2P-VH			
CN9	*	PLUG, CONNECTOR B3P-VH			
CN10	*1-564-513-11	PLUG, CONNECTOR 10P			
CN11	*1-564-513-11	PLUG, CONNECTOR 10P			
CN12	*1-564-513-11	PLUG, CONNECTOR 10P			
CN13	*1-564-513-11	PLUG, CONNECTOR 10P			
CN14	*1-564-513-11	PLUG, CONNECTOR 10P			
CN15	*1-564-513-11	PLUG, CONNECTOR 10P			
CN16	*1-564-513-11	PLUG, CONNECTOR 10P			
CN17	*1-564-513-11	PLUG, CONNECTOR 10P			
CN18	*1-564-513-11	PLUG, CONNECTOR 10P			
CN19	*1-564-513-11	PLUG, CONNECTOR 10P			
CN20	*1-564-509-11	PLUG, CONNECTOR 6P			
J9	*1-568-985-11	CONNECTOR, FEMALE 64P			
J10	*1-568-985-11	CONNECTOR, FEMALE 64P			
		<DIODE>			
D1	8-719-820-59	DIODE 1S1588			
D2	8-719-820-59	DIODE 1S1588			
D3	8-719-820-59	DIODE 1S1588			
D4	8-719-820-59	DIODE 1S1588			
D5	8-719-820-59	DIODE 1S1588			
D6	8-719-820-59	DIODE 1S1588			
D7	8-719-820-59	DIODE 1S1588			
D8	8-719-820-59	DIODE 1S1588			
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IC1	8-759-982-31	IC RC78M05FA			
IC2	8-759-982-34	IC RC78M09FA			
IC3	8-759-975-45	IC SN75451B			
IC4	8-759-354-53	IC HD75453P			
IC5	8-759-354-53	IC HD75453P			

REF.NO.	PART NO.	DESCRIPTION				REMARK
IC6	8-759-354-53	IC HD75453P				
IC7	8-759-916-20	IC SN74HC14AN				
		<FILTER>				
NF1	9-902-389-01	FILTER, EMI BNX002-01				
		<TRANSISTOR>				
Q1	8-729-203-62	TRANSISTOR 2SB595				
Q2	8-729-140-97	TRANSISTOR 2SB734-34				
Q3	8-729-212-02	TRANSISTOR 2SC2120-Y				
Q4	8-729-212-02	TRANSISTOR 2SC2120-Y				
Q5	8-729-212-02	TRANSISTOR 2SC2120-Y				
		<RESISTOR>				
R1	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R2	1-249-410-11	CARBON	270	5%	1/4W	F
R3	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R4	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R5	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R6	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R7	1-249-405-11	CARBON	100	5%	1/4W	F
R8	1-249-405-11	CARBON	100	5%	1/4W	F
R9	1-249-405-11	CARBON	100	5%	1/4W	F
R10	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R11	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R12	1-249-429-11	CARBON	10K	5%	1/4W	F
R13	1-249-409-11	CARBON	220	5%	1/4W	F
		<RELAY>				
RL1	9-901-738-01	RELAY A-12W-K				
RL2	9-901-738-01	RELAY A-12W-K				
RL3	9-901-738-01	RELAY A-12W-K				
RL4	9-901-738-01	RELAY A-12W-K				
RL5	9-901-738-01	RELAY A-12W-K				
RL6	9-901-738-01	RELAY A-12W-K				
RL7	9-901-738-01	RELAY A-12W-K				
RL8	9-901-738-01	RELAY A-12W-K				
RL9	9-901-738-01	RELAY A-12W-K				
RL10	9-901-738-01	RELAY A-12W-K				
RL11	9-901-738-01	RELAY A-12W-K				
RL12	9-901-738-01	RELAY A-12W-K				
RL13	9-901-738-01	RELAY A-12W-K				
RL14	9-901-738-01	RELAY A-12W-K				
RL15	9-901-738-01	RELAY A-12W-K				
RL16	9-901-738-01	RELAY A-12W-K				
RL17	9-901-738-01	RELAY A-12W-K				
RL18	9-901-738-01	RELAY A-12W-K				
RL19	9-901-738-01	RELAY A-12W-K				
RL20	9-901-738-01	RELAY A-12W-K				
RL21	9-901-738-01	RELAY A-12W-K				
RL22	9-901-738-01	RELAY A-12W-K				
RL23	9-901-738-01	RELAY A-12W-K				
RL24	9-901-738-01	RELAY A-12W-K				

****

*9-902-383-01 J BOARD COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1	9-996-186-01	CERAMIC	0.1PF		50V
C2	1-102-074-00	CERAMIC	100PF	10%	50V
C3	1-126-163-11	ELECT	4.7MF	20%	50V
C4	1-126-163-11	ELECT	4.7MF	20%	50V
C5	9-902-220-01	CERAMIC	0.01PF		50V
C6	1-124-915-11	ELECT	10MF	20%	63V
C7	1-102-074-00	CERAMIC	100PF	10%	50V
C8	1-102-074-00	CERAMIC	100PF	10%	50V
C9	1-102-074-00	CERAMIC	100PF	10%	50V
C10	1-102-074-00	CERAMIC	100PF	10%	50V
C11	1-102-074-00	CERAMIC	100PF	10%	50V
C12	1-102-074-00	CERAMIC	100PF	10%	50V
C13	1-102-074-00	CERAMIC	100PF	10%	50V
C14	1-102-074-00	CERAMIC	100PF	10%	50V
C15	1-102-074-00	CERAMIC	100PF	10%	50V
C16	1-102-074-00	CERAMIC	100PF	10%	50V
C17	1-124-915-11	ELECT	10MF	20%	63V
C18	9-996-186-01	CERAMIC	0.1PF		50V
C19	9-996-186-01	CERAMIC	0.1PF		50V
C20	9-996-186-01	CERAMIC	0.1PF		50V
C21	9-996-186-01	CERAMIC	0.1PF		50V
C22	9-996-186-01	CERAMIC	0.1PF		50V
C23	9-996-186-01	CERAMIC	0.1PF		50V
C24	9-996-186-01	CERAMIC	0.1PF		50V
C25	9-996-186-01	CERAMIC	0.1PF		50V
C26	9-996-186-01	CERAMIC	0.1PF		50V
C27	1-102-518-11	CERAMIC	33PF	5%	50V
C28	1-102-518-11	CERAMIC	33PF	5%	50V
C29	1-102-978-00	CERAMIC	220PF	5%	50V
C30	1-102-978-00	CERAMIC	220PF	5%	50V
C31	1-124-915-11	ELECT	10MF	20%	63V
C32	1-124-915-11	ELECT	10MF	20%	63V
C33	1-124-915-11	ELECT	10MF	20%	63V
C34	1-124-898-11	ELECT	4700MF	20%	16V
C35	1-124-898-11	ELECT	4700MF	20%	16V
C36	9-996-186-01	CERAMIC	0.1PF		50V
C37	9-996-186-01	CERAMIC	0.1PF		50V
C38	9-996-186-01	CERAMIC	0.1PF		50V
C39	9-996-186-01	CERAMIC	0.1PF		50V
C40	9-996-186-01	CERAMIC	0.1PF		50V
C41	9-996-186-01	CERAMIC	0.1PF		50V
C42	9-996-186-01	CERAMIC	0.1PF		50V
C43	9-996-186-01	CERAMIC	0.1PF		50V
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C45	9-996-186-01	CERAMIC	0.1PF		50V
C46	9-996-186-01	CERAMIC	0.1PF		50V
C47	9-996-186-01	CERAMIC	0.1PF		50V
C48	9-996-186-01	CERAMIC	0.1PF		50V
C49	9-996-186-01	CERAMIC	0.1PF		50V
C50	9-996-186-01	CERAMIC	0.1PF		50V
C51	9-996-186-01	CERAMIC	0.1PF		50V
C52	9-996-186-01	CERAMIC	0.1PF		50V
C53	9-996-186-01	CERAMIC	0.1PF		50V
C54	9-996-186-01	CERAMIC	0.1PF		50V
C55	9-996-186-01	CERAMIC	0.1PF		50V
C56	9-996-186-01	CERAMIC	0.1PF		50V
C57	9-996-186-01	CERAMIC	0.1PF		50V
C58	9-996-186-01	CERAMIC	0.1PF		50V
C59	9-996-186-01	CERAMIC	0.1PF		50V
C60	9-996-186-01	CERAMIC	0.1PF		50V
C61	9-902-220-01	CERAMIC	0.01PF		50V
C62	9-996-186-01	CERAMIC	0.1PF		50V
C63	9-996-186-01	CERAMIC	0.1PF		50V
C64	9-996-186-01	CERAMIC	0.1PF		50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C65	9-996-186-01	CERAMIC	0.1PF		50V
C66	1-126-541-11	ELECT	330MF	20%	25V
		<CONNECTOR>			
CN3	*9-902-391-01	PIN HEADER 34P			
CN4	*9-902-392-01	PIN HEADER 26P			
CN5	*1-564-518-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D1	8-719-820-59	DIODE 1S1588			
D2	8-719-820-59	DIODE 1S1588			
D3	8-719-820-59	DIODE 1S1588			
D4	8-719-109-85	DIODE RD5.1ESB2			
D5	8-719-988-25	DIODE HRP22			
D6	8-719-200-02	DIODE 10E-2			
D7	8-719-820-59	DIODE 1S1588			
D8	8-719-820-59	DIODE 1S1588			
D9	8-719-820-59	DIODE 1S1588			
		<IC>			
IC1	8-741-148-33	IC SBX1483-59			
IC2	8-759-916-20	IC SN74HC14AN			
IC3	8-759-001-00	IC MC74HC123N			
IC4	8-759-901-23	IC SN74LS123N			
IC5	8-759-001-00	IC MC74HC123N			
IC6	8-759-902-40	IC SN74LS240N			
IC7	8-759-902-40	IC SN74LS240N			
IC8	8-759-916-24	IC SN74HC30AN			
IC9	8-759-902-40	IC SN74LS240N			
IC10	8-759-202-91	IC TC74HC148P			
IC11	8-759-007-19	IC MC74HC4051N			
IC12	8-759-916-16	IC SN74HC08AN			
IC13	8-759-202-91	IC TC74HC148P			
IC14	8-759-007-19	IC MC74HC4051N			
IC15	8-759-902-44	IC SN74LS244N			
IC16	8-759-007-19	IC MC74HC4051N			
IC17	8-759-990-82	IC TL082CP			
IC18	8-759-901-23	IC SN74LS123N			
IC19	8-759-921-81	IC SN74HC4066N			
IC20	8-759-916-18	IC SN74HC10AN			
IC21	8-759-947-91	IC PST523D			
IC22	8-759-062-73	IC MB8855-1393N			
IC23	8-759-634-91	IC M50461-157SP			
IC24	8-759-925-10	IC TL510CP			
IC25	8-759-925-10	IC TL510CP			
IC26	8-759-925-10	IC TL510CP			
IC27	8-759-916-23	IC SN74HC27AN			
IC28	8-759-921-81	IC SN74HC4066N			
IC29	8-759-977-88	IC CAT59C11P			
IC30	8-759-916-20	IC SN74HC14AN			
IC31	8-759-604-35	IC M5F78M05L			
IC32	8-759-916-20	IC SN74HC14AN			
		<TRANSISTOR>			
Q1	8-729-212-02	TRANSISTOR 2SC2120-Y			
Q2	8-729-212-02	TRANSISTOR 2SC2120-Y			
Q3	8-729-212-02	TRANSISTOR 2SC2120-Y			
Q4	8-729-212-02	TRANSISTOR 2SC2120-Y			
Q5	8-729-212-02	TRANSISTOR 2SC2120-Y			
Q6	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q7	8-729-212-02	TRANSISTOR 2SC2120-Y			
Q8	8-729-212-02	TRANSISTOR 2SC2120-Y			

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q9	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		<RESISTOR>				
R1	1-249-417-11	CARBON	1K	5%	1/4W	F
R2	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R3	1-249-437-11	CARBON	47K	5%	1/4W	F
R4	1-249-435-11	CARBON	33K	5%	1/4W	F
R5	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R6	1-249-417-11	CARBON	1K	5%	1/4W	F
R7	1-249-417-11	CARBON	1K	5%	1/4W	F
R8	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R9	1-249-397-11	CARBON	22	5%	1/4W	F
R10	1-249-441-11	CARBON	100K	5%	1/4W	F
R11	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R12	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R13	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R14	1-249-397-11	CARBON	22	5%	1/4W	F
R15	1-249-417-11	CARBON	1K	5%	1/4W	F
R16	1-249-413-11	CARBON	470	5%	1/4W	F
R17	1-249-401-11	CARBON	47	5%	1/4W	F
R18	1-249-429-11	CARBON	10K	5%	1/4W	F
R19	1-249-429-11	CARBON	10K	5%	1/4W	F
R20	1-249-429-11	CARBON	10K	5%	1/4W	F
R21	1-249-397-11	CARBON	22	5%	1/4W	F
R22	1-249-397-11	CARBON	22	5%	1/4W	F
R23	1-249-397-11	CARBON	22	5%	1/4W	F
R24	1-249-397-11	CARBON	22	5%	1/4W	F
R25	1-249-397-11	CARBON	22	5%	1/4W	F
R26	1-249-397-11	CARBON	22	5%	1/4W	F
R27	1-249-397-11	CARBON	22	5%	1/4W	F
R28	1-249-397-11	CARBON	22	5%	1/4W	F
R29	1-249-397-11	CARBON	22	5%	1/4W	F
R30	1-249-397-11	CARBON	22	5%	1/4W	F
R31	1-249-397-11	CARBON	22	5%	1/4W	F
R32	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R33	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R34	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R35	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R36	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R37	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R38	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R39	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R40	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R41	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R42	1-249-429-11	CARBON	10K	5%	1/4W	F
R43	1-249-429-11	CARBON	10K	5%	1/4W	F
R44	1-249-429-11	CARBON	10K	5%	1/4W	F
R45	1-249-429-11	CARBON	10K	5%	1/4W	F
R46	1-249-429-11	CARBON	10K	5%	1/4W	F
R47	1-249-429-11	CARBON	10K	5%	1/4W	F
R48	1-249-429-11	CARBON	10K	5%	1/4W	F
R49	1-249-429-11	CARBON	10K	5%	1/4W	F
R50	1-249-429-11	CARBON	10K	5%	1/4W	F
R51	1-249-429-11	CARBON	10K	5%	1/4W	F
R52	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R53	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R54	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R55	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R56	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R57	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R58	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R59	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R60	1-249-421-11	CARBON	2.2K	5%	1/4W	F

REF.NO.	PART NO.	DESCRIPTION				REMARK
R61	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R62	1-249-404-00	CARBON	82	5%	1/4W	F
R63	1-249-404-00	CARBON	82	5%	1/4W	F
R64	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R65	1-249-441-11	CARBON	100K	5%	1/4W	F
R66	1-249-441-11	CARBON	100K	5%	1/4W	F
R67	1-249-441-11	CARBON	100K	5%	1/4W	F
R68	1-249-441-11	CARBON	100K	5%	1/4W	F
R69	1-249-441-11	CARBON	100K	5%	1/4W	F
R70	1-249-441-11	CARBON	100K	5%	1/4W	F
R71	1-249-441-11	CARBON	100K	5%	1/4W	F
R72	1-249-441-11	CARBON	100K	5%	1/4W	F
R73	1-249-441-11	CARBON	100K	5%	1/4W	F
R74	1-249-429-11	CARBON	10K	5%	1/4W	F
R75	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R76	1-249-429-11	CARBON	10K	5%	1/4W	F
R77	1-249-435-11	CARBON	33K	5%	1/4W	F
R78	1-249-441-11	CARBON	100K	5%	1/4W	F
R79	1-249-433-11	CARBON	22K	5%	1/4W	F
R80	1-249-429-11	CARBON	10K	5%	1/4W	F
R81	1-249-429-11	CARBON	10K	5%	1/4W	F
R82	1-249-429-11	CARBON	10K	5%	1/4W	F
R83	1-249-429-11	CARBON	10K	5%	1/4W	F
R84	1-249-435-11	CARBON	33K	5%	1/4W	F
R85	1-249-397-11	CARBON	22	5%	1/4W	F
R86	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R87	1-249-435-11	CARBON	33K	5%	1/4W	F
R88	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R88	1-249-426-11	CARBON	5.6K	5%	1/4W	F
R89	1-249-430-11	CARBON	12K	5%	1/4W	F
R90	1-249-441-11	CARBON	100K	5%	1/4W	F
R91	1-249-397-11	CARBON	22	5%	1/4W	F
R92	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R93	1-247-855-31	CARBON	10K	5%	1/4W	

<SWITCH>

SW1	9-996-188-01	SWITCH, PUSH
SW2	9-996-189-01	SWITCH, PUSH
SW3	9-996-190-01	SWITCH, PUSH
SW4	9-996-191-01	SWITCH, PUSH
SW5	9-996-192-01	SWITCH, PUSH
SW6	9-996-193-01	SWITCH, PUSH
SW7	9-996-194-01	SWITCH, PUSH
SW8	9-996-195-01	SWITCH, PUSH
SW9	9-900-270-01	SWITCH
SW10	9-900-196-01	SWITCH, PUSH(ON)
SW11	9-996-198-01	SWITCH, PIN HEADER

<CRYSTAL>

X1	1-576-192-41	CXA4.0MG
X2	1-527-476-00	OSCILLATOR, CERAMIC

****

*9-902-387-01 A BOARD COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1	1-126-103-11	ELECT	470MF	20%	16V
C2	1-126-103-11	ELECT	470MF	20%	16V
C3	1-126-103-11	ELECT	470MF	20%	16V
C4	1-126-234-11	ELECT	2200MF	20%	16V
C5	1-126-234-11	ELECT	2200MF	20%	16V
C6	1-126-234-11	ELECT	2200MF	20%	16V
C7	1-124-915-11	ELECT	10MF	20%	63V
C8	9-996-186-01	CERAMIC	0.1PF		50V
C9	1-124-122-11	ELECT	100MF	20%	50V
C10	1-124-122-11	ELECT	100MF	20%	50V
C11	9-996-186-01	CERAMIC	0.1PF		50V
C12	9-996-186-01	CERAMIC	0.1PF		50V
C13	9-996-186-01	CERAMIC	0.1PF		50V
C14	9-996-186-01	CERAMIC	0.1PF		50V
C15	9-902-220-01	CERAMIC	0.01PF		50V
C16	9-996-186-01	CERAMIC	0.1PF		50V
C17	9-996-186-01	CERAMIC	0.1PF		50V
C18	9-996-186-01	CERAMIC	0.1PF		50V
C19	1-124-915-11	ELECT	10MF	20%	63V
C20	1-124-915-11	ELECT	10MF	20%	63V
C23	1-124-360-00	ELECT	1000MF	20%	16V
C24	1-124-360-00	ELECT	1000MF	20%	16V
C25	1-124-122-11	ELECT	100MF	20%	50V
C26	1-124-122-11	ELECT	100MF	20%	50V
C27	1-124-360-00	ELECT	1000MF	20%	16V
C28	1-124-360-00	ELECT	1000MF	20%	16V
C29	1-124-915-11	ELECT	10MF	20%	63V
C30	1-124-915-11	ELECT	10MF	20%	63V
C31	1-124-915-11	ELECT	10MF	20%	63V
C32	1-124-915-11	ELECT	10MF	20%	63V
C33	9-996-186-01	CERAMIC	0.1PF		50V
C34	9-996-186-01	CERAMIC	0.1PF		50V
C35	9-996-186-01	CERAMIC	0.1PF		50V
C36	9-996-186-01	CERAMIC	0.1PF		50V
C37	9-996-186-01	CERAMIC	0.1PF		50V
C40	1-102-947-00	CERAMIC	10PF		50V
C41	1-102-947-00	CERAMIC	10PF		50V
C42	1-102-947-00	CERAMIC	10PF		50V

<DIODE>

D1	8-719-820-59	DIODE 1S1588
D2	8-719-820-59	DIODE 1S1588
D3	8-719-820-59	DIODE 1S1588
D4	8-719-820-59	DIODE 1S1588
D5	8-719-820-59	DIODE 1S1588
D6	8-719-820-59	DIODE 1S1588
D7	8-719-200-02	DIODE 10E-2
D8	8-719-820-59	DIODE 1S1588
D9	8-719-820-59	DIODE 1S1588
D10	8-719-820-59	DIODE 1S1588
D11	8-719-820-59	DIODE 1S1588
D12	8-719-820-59	DIODE 1S1588
D13	8-719-820-59	DIODE 1S1588
D14	8-719-820-59	DIODE 1S1588
D15	8-719-820-59	DIODE 1S1588
D16	8-719-820-59	DIODE 1S1588
D17	8-719-200-02	DIODE 10E-2
D18	8-719-820-59	DIODE 1S1588
D20	8-719-820-59	DIODE 1S1588
D21	8-719-820-59	DIODE 1S1588
D22	8-719-820-59	DIODE 1S1588
D23	8-719-820-59	DIODE 1S1588
D24	8-719-100-34	DIODE RD5.6E
D29	8-719-820-59	DIODE 1S1588

<IC>

IC1	9-996-108-01	IC 4C0040

A

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC2	9-996-108-01	IC 4C0040	
IC3	9-996-108-01	IC 4C0040	
IC4	8-759-354-53	IC HD75453P	
IC5	8-759-921-81	IC SN74HC4066N	
IC6	8-759-103-19	IC UPC319C	
IC7	8-759-239-47	IC TC74HC123AP	
IC8	8-759-503-91	IC TL082ACP	
IC9	8-759-916-16	IC SN74HC08AN	
IC10	8-759-921-10	IC SN74HC86AN	
IC11	8-759-001-00	IC MC74HC132N	
IC12	8-759-947-59	IC PST523D	
IC13	8-759-354-52	IC HD75452P	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J1	*1-564-511-11	PLUG, CONNECTOR 8P	
J2	*1-564-507-11	PLUG, CONNECTOR 4P	
J9	*1-568-981-11	CONNECTOR, MALE 64P	
J101	9-996-175-01	CONNECTOR TCS7548-01-201	
J102	9-996-176-01	CONNECTOR, BNC	
J103	9-996-179-01	PIN JACK, L	
J104	9-996-180-01	PIN JACK, R	
J105	9-902-393-01	JACK	
J106	9-996-176-01	CONNECTOR, BNC	
J107	9-996-176-01	CONNECTOR, BNC	
J108	9-996-176-01	CONNECTOR, BNC	
J109	9-996-176-01	CONNECTOR, BNC	
J110	9-996-176-01	CONNECTOR, BNC	

<JUMPER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
JP1	*9-901-739-01	JUMPER	
JP2	*9-901-739-01	JUMPER	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q2	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q3	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q4	8-729-140-97	TRANSISTOR 2SB734-34	
Q5	8-729-140-97	TRANSISTOR 2SB734-34	
Q6	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q7	8-729-140-97	TRANSISTOR 2SB734-34	
Q9	8-729-140-97	TRANSISTOR 2SB734-34	
Q8	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q10	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q11	8-729-212-02	TRANSISTOR 2SC2120-Y	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-249-401-11	CARBON	47	5%	1/4W	F
R2	1-249-401-11	CARBON	47	5%	1/4W	F
R3	1-249-401-11	CARBON	47	5%	1/4W	F
R4	1-247-804-11	CARBON	75	5%	1/4W	
R5	1-247-804-11	CARBON	75	5%	1/4W	
R6	1-247-804-11	CARBON	75	5%	1/4W	
R7	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R8	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R9	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R10	1-249-397-11	CARBON	22	5%	1/4W	F
R11	1-249-397-11	CARBON	22	5%	1/4W	F
R12	1-247-804-11	CARBON	75	5%	1/4W	
R13	1-247-804-11	CARBON	75	5%	1/4W	
R14	1-249-441-11	CARBON	100K	5%	1/4W	F
R15	1-249-441-11	CARBON	100K	5%	1/4W	F
R16	1-249-426-11	CARBON	5.6K	5%	1/4W	F
R17	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R18	1-249-421-11	CARBON	2.2K	5%	1/4W	
R19	1-249-417-11	CARBON	1K	5%	1/4W	F
R20	1-249-417-11	CARBON	1K	5%	1/4W	F
R21	1-249-413-11	CARBON	470	5%	1/4W	F
R22	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R23	1-249-413-11	CARBON	470	5%	1/4W	F
R24	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R25	1-249-437-11	CARBON	47K	5%	1/4W	F
R26	1-249-437-11	CARBON	47K	5%	1/4W	F
R27	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R28	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R29	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R30	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R31	1-249-432-11	CARBON	18K	5%	1/4W	F
R32	1-249-420-11	CARBON	1.8K	5%	1/4W	
R33	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R34	1-249-432-11	CARBON	18K	5%	1/4W	F
R35	1-249-433-11	CARBON	22K	5%	1/4W	F
R35	1-249-420-11	CARBON	1.8K	5%	1/4W	
R36	1-249-421-11	CARBON	2.2K	5%	1/4W	
R37	1-249-389-11	CARBON	4.7	5%	1/4W	F
R37	1-249-433-11	CARBON	22K	5%	1/4W	F
R38	1-249-389-11	CARBON	4.7	5%	1/4W	F
R39	1-249-421-11	CARBON	2.2K	5%	1/4W	
R40	1-249-389-11	CARBON	4.7	5%	1/4W	F
R41	1-249-389-11	CARBON	4.7	5%	1/4W	F
R42	1-247-804-11	CARBON	75	5%	1/4W	
R43	1-247-804-11	CARBON	75	5%	1/4W	
R45	1-249-411-11	CARBON	330	5%	1/4W	F
R46	1-249-411-11	CARBON	330	5%	1/4W	F
R48	1-249-411-11	CARBON	330	5%	1/4W	F
R49	1-249-411-11	CARBON	330	5%	1/4W	F
R50	1-247-804-11	CARBON	75	5%	1/4W	
R51	1-247-804-11	CARBON	75	5%	1/4W	
R52	1-249-437-11	CARBON	47K	5%	1/4W	F
R53	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R54	1-249-417-11	CARBON	1K	5%	1/4W	F
R55	1-249-417-11	CARBON	1K	5%	1/4W	F
R56	1-215-867-51	CARBON	470	5%	1W	F
R57	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R58	1-249-433-11	CARBON	22K	5%	1/4W	F
R59	1-249-433-11	CARBON	22K	5%	1/4W	F
R60	1-249-433-11	CARBON	22K	5%	1/4W	F
R61	1-249-433-11	CARBON	22K	5%	1/4W	F
R62	1-249-421-11	CARBON	2.2K	5%	1/4W	
R63	1-249-421-11	CARBON	2.2K	5%	1/4W	
R64	1-249-417-11	CARBON	1K	5%	1/4W	F
R65	1-249-417-11	CARBON	1K	5%	1/4W	F
R66	1-249-409-11	CARBON	220	5%	1/4W	F
R67	1-249-409-11	CARBON	220	5%	1/4W	F
R68	1-249-409-11	CARBON	220	5%	1/4W	F

<RELAY>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RL1	9-901-738-01	RELAY A-12W-K	
RL2	9-901-738-01	RELAY A-12W-K	
RL3	9-901-738-01	RELAY A-12W-K	
RL4	9-901-738-01	RELAY A-12W-K	
RL5	9-901-738-01	RELAY A-12W-K	
RL6	9-901-738-01	RELAY A-12W-K	

REF.NO.	PART NO.	DESCRIPTION				REMARK
RL7	9-901-738-01	RELAY A-12W-K				

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SW1	9-996-152-01	SWITCH, SLIDE	
SW2	9-996-152-01	SWITCH, SLIDE	

****

*9-902-388-01 N BOARD COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1	1-124-919-11	ELECT	220MF	20%	63V	
C2	1-126-101-11	ELECT	100MF	20%	16V	
C3	1-124-360-00	ELECT	1000MF	20%	16V	
C4	1-124-360-00	ELECT	1000MF	20%	16V	
C5	1-124-360-00	ELECT	1000MF	20%	16V	
C6	1-124-919-11	ELECT	220MF	20%	63V	
C7	1-124-919-11	ELECT	220MF	20%	63V	
C8	9-996-186-01	CERAMIC	0.1PF		50V	
C9	9-996-186-01	CERAMIC	0.1PF		50V	
C10	9-996-186-01	CERAMIC	0.1PF		50V	
C11	1-123-320-51	ELECT	100MF		16V	
C101	1-126-103-11	ELECT	470MF	20%	16V	
C102	1-102-937-00	CERAMIC	4PF	0.25PF	50V	
C103	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C104	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C105	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C106	9-996-186-01	CERAMIC	0.1PF		50V	
C107	1-124-919-11	ELECT	220MF	20%	63V	
C108	9-996-186-01	CERAMIC	0.1PF		50V	
C109	1-126-101-11	ELECT	100MF	20%	16V	
C110	1-126-101-11	ELECT	100MF	20%	16V	
C111	9-996-186-01	CERAMIC	0.1PF		50V	
C112	9-996-186-01	CERAMIC	0.1PF		50V	
C113	9-996-186-01	CERAMIC	0.1PF		50V	
C114	9-996-186-01	CERAMIC	0.1PF		50V	
C115	1-124-919-11	ELECT	220MF	20%	63V	
C116	1-102-971-00	CERAMIC	82PF	5%	50V	
C117	1-124-360-00	ELECT	1000MF	20%	16V	
C118	1-124-360-00	ELECT	1000MF	20%	16V	
C119	9-996-186-01	CERAMIC	0.1PF		50V	
C201	1-126-103-11	ELECT	470MF	20%	16V	
C202	1-102-937-00	CERAMIC	4PF	0.25PF	50V	
C203	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C204	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C205	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C206	9-996-186-01	CERAMIC	0.1PF		50V	
C207	1-124-919-11	ELECT	220MF	20%	63V	
C208	9-996-186-01	CERAMIC	0.1PF		50V	
C209	1-126-101-11	ELECT	100MF	20%	16V	
C210	1-126-101-11	ELECT	100MF	20%	16V	
C211	9-996-186-01	CERAMIC	0.1PF		50V	
C212	9-996-186-01	CERAMIC	0.1PF		50V	
C213	9-996-186-01	CERAMIC	0.1PF		50V	
C214	9-996-186-01	CERAMIC	0.1PF		50V	
C215	1-124-919-11	ELECT	220MF	20%	63V	
C216	1-102-971-00	CERAMIC	82PF	5%	50V	
C217	1-124-360-00	ELECT	1000MF	20%	16V	
C218	1-124-360-00	ELECT	1000MF	20%	16V	
C219	9-996-186-01	CERAMIC	0.1PF		50V	
C301	1-126-103-11	ELECT	470MF	20%	16V	
C302	1-102-937-00	CERAMIC	4PF	0.25PF	50V	
C303	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C304	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C305	1-102-944-00	CERAMIC	7PF	1.00PF	50V	
C306	9-996-186-01	CERAMIC	0.1PF		50V	
C307	1-124-919-11	ELECT	220MF	20%	63V	
C308	9-996-186-01	CERAMIC	0.1PF		50V	
C309	1-126-101-11	ELECT	100MF	20%	16V	
C310	1-126-101-11	ELECT	100MF	20%	16V	
C311	9-996-186-01	CERAMIC	0.1PF		50V	
C312	9-996-186-01	CERAMIC	0.1PF		50V	
C313	9-996-186-01	CERAMIC	0.1PF		50V	
C314	9-996-186-01	CERAMIC	0.1PF		50V	
C315	1-124-919-11	ELECT	220MF	20%	63V	
C316	1-102-971-00	CERAMIC	82PF	5%	50V	
C317	1-124-360-00	ELECT	1000MF	20%	16V	
C318	1-124-360-00	ELECT	1000MF	20%	16V	
C319	9-996-186-01	CERAMIC	0.1PF		50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1	8-719-200-02	DIODE 10E-2	
D2	8-719-820-59	DIODE 1S1588	
D3	8-719-820-59	DIODE 1S1588	
D4	8-719-820-59	DIODE 1S1588	
D5	8-719-820-59	DIODE 1S1588	
D6	8-719-820-59	DIODE 1S1588	
D7	8-719-820-59	DIODE 1S1588	
D8	8-719-820-59	DIODE 1S1588	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-354-52	IC HD75452P	
IC2		IC CLC401AP	
IC3		IC CLC401AP	
IC4		IC CLC401AP	
IC5	8-759-981-00	IC TL081CP	
IC6	8-759-982-21	IC RC78L05A	
IC7	8-759-981-00	IC TL081CP	
IC8	8-759-981-00	IC TL081CP	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J10	*1-568-981-11	CONNECTOR, MALE 64P	
J11	*1-564-509-11	PLUG, CONNECTOR 6P	
J12	*1-564-509-11	PLUG, CONNECTOR 6P	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q2	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q3	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q4	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q5	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q6	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q7	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q101	8-729-190-12	TRANSISTOR 2SC2901-K	
Q102	8-729-103-19	TRANSISTOR 2SA1206-K1	
Q103	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q201	8-729-190-12	TRANSISTOR 2SC2901-K	
Q202	8-729-103-19	TRANSISTOR 2SA1206-K1	
Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q204	8-729-119-76	TRANSISTOR 2SA1175-HFE	

N AC IN

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q301	8-729-190-12	TRANSISTOR 2SC2901-K	
Q302	8-729-103-19	TRANSISTOR 2SA1206-K1	
Q303	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q304	8-729-119-76	TRANSISTOR 2SA1175-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R2	1-249-414-11	CARBON	560	5%	1/4W	F
R3	1-249-409-11	CARBON	220	5%	1/4W	F
R4	1-249-429-11	CARBON	10K	5%	1/4W	F
R5	1-249-429-11	CARBON	10K	5%	1/4W	F
R6	1-249-429-11	CARBON	10K	5%	1/4W	F
R7	1-249-414-11	CARBON	560	5%	1/4W	F
R8	1-249-414-11	CARBON	560	5%	1/4W	F
R9	1-249-409-11	CARBON	220	5%	1/4W	F
R10	1-249-409-11	CARBON	220	5%	1/4W	F
R11	1-249-405-11	CARBON	100	5%	1/4W	F
R12	1-249-405-11	CARBON	100	5%	1/4W	F
R13	1-249-407-11	CARBON	150	5%	1/4W	F
R14	1-249-407-11	CARBON	150	5%	1/4W	F
R15	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R16	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R17	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R18	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R19	1-249-439-11	CARBON	68K	5%	1/4W	F
R20	1-249-439-11	CARBON	68K	5%	1/4W	F
R21	1-249-437-11	CARBON	47K	5%	1/4W	F
R22	1-249-437-11	CARBON	47K	5%	1/4W	F
R23	1-249-441-11	CARBON	100K	5%	1/4W	F
R24	1-249-441-11	CARBON	100K	5%	1/4W	F
R25	1-249-417-11	CARBON	1K	5%	1/4W	F
R26	1-247-783-11	CARBON	10			
R101	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R102	1-249-433-11	CARBON	22K	5%	1/4W	F
R103	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R104	1-249-401-11	CARBON	47	5%	1/4W	F
R105	1-249-409-11	CARBON	220	5%	1/4W	F
R106	1-249-409-11	CARBON	220	5%	1/4W	F
R107	1-249-407-11	CARBON	150	5%	1/4W	F
R108	1-247-818-11	CARBON	300	5%	1/4W	
R109	1-249-411-11	CARBON	330	5%	1/4W	F
R110	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R111	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R112	1-249-431-11	CARBON	15K	5%	1/4W	F
R113	1-249-407-11	CARBON	150	5%	1/4W	F
R114	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R115	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R116	1-249-404-00	CARBON	82	5%	1/4W	
R117	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R118	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R119	1-247-883-00	CARBON	150K	5%	1/4W	
R120	1-247-883-00	CARBON	150K	5%	1/4W	
R121	1-249-437-11	CARBON	47K	5%	1/4W	F
R122	1-249-433-11	CARBON	22K	5%	1/4W	F
R123	1-247-828-11	CARBON	750	5%	1/4W	
R124	1-247-804-11	CARBON	75	5%	1/4W	
R201	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R202	1-249-433-11	CARBON	22K	5%	1/4W	F
R203	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R204	1-249-401-11	CARBON	47	5%	1/4W	F
R205	1-249-409-11	CARBON	220	5%	1/4W	F
R206	1-249-409-11	CARBON	220	5%	1/4W	F
R207	1-249-407-11	CARBON	150	5%	1/4W	F
R208	1-247-818-11	CARBON	300	5%	1/4W	
R209	1-249-411-11	CARBON	330	5%	1/4W	F
R210	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R211	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R212	1-249-431-11	CARBON	15K	5%	1/4W	F
R213	1-249-407-11	CARBON	150	5%	1/4W	F
R214	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R215	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R216	1-249-404-00	CARBON	82	5%	1/4W	
R217	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R218	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R219	1-247-883-00	CARBON	150K	5%	1/4W	
R220	1-247-883-00	CARBON	150K	5%	1/4W	
R221	1-249-437-11	CARBON	47K	5%	1/4W	F
R222	1-249-433-11	CARBON	22K	5%	1/4W	F
R223	1-247-828-11	CARBON	750	5%	1/4W	
R224	1-247-804-11	CARBON	75	5%	1/4W	
R301	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R302	1-249-433-11	CARBON	22K	5%	1/4W	F
R303	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R304	1-249-401-11	CARBON	47	5%	1/4W	F
R305	1-249-409-11	CARBON	220	5%	1/4W	F
R306	1-249-409-11	CARBON	220	5%	1/4W	F
R307	1-249-407-11	CARBON	150	5%	1/4W	F
R308	1-247-818-11	CARBON	300	5%	1/4W	
R309	1-249-411-11	CARBON	330	5%	1/4W	F
R310	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R311	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R312	1-249-431-11	CARBON	15K	5%	1/4W	F
R313	1-249-407-11	CARBON	150	5%	1/4W	F
R314	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R315	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R316	1-249-404-00	CARBON	82	5%	1/4W	
R317	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R318	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R319	1-247-883-00	CARBON	150K	5%	1/4W	
R320	1-247-883-00	CARBON	150K	5%	1/4W	
R321	1-249-437-11	CARBON	47K	5%	1/4W	F
R322	1-249-433-11	CARBON	22K	5%	1/4W	F
R323	1-247-828-11	CARBON	750	5%	1/4W	
R324	1-247-804-11	CARBON	75	5%	1/4W	

<RELAY>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RL1	1-515-757-11	RELAY UM1-12W-K	
RL2	1-515-757-11	RELAY UM1-12W-K	
RL3	1-515-757-11	RELAY UM1-12W-K	
RL4	9-996-184-01	RELAY RY-12W-K	

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SW1	9-902-394-01	SWITCH	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T1	9-902-395-01	TRANSFORMER ST-74P	
T2	9-902-395-01	TRANSFORMER ST-74P	

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AC IN ASSY

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	9-996-161-01	14P CONNECTOR, ROUND (MALE) ASSY	
	9-996-162-01	14P CONNECTOR, ROUND (FEMALE) ASSY	
	⚠ 9-902-538-01	INLET AC	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠9-902-539-01	SWITCH, MAIN POWER	

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MISCELLANEOUS

PART NO.	DESCRIPTION	REMARK
8-759-062-73	IC MB8855-1393N	
8-759-634-91	IC M50461-157SP	
⚠9-902-540-01	SWITCHING REGULATOR	
⚠9-902-344-01	FUSE (3.15A 250V)	

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ACCESSORIES & PACKING MATERIALS

PART NO.	DESCRIPTION	REMARK
1-465-334-11	REMOTE COMMANDER (RM-1270S)	
⚠1-551-812-11	CORD, POWER (7A/125V)	
3-754-437-21	MANUAL, INSTRUCTION	
4-035-771-01	PLATE, BLIND	
4-035-776-01	SHEET, INPUT	
4-032-780-01	LABEL, SPARE	
4-032-781-01	LABEL, INDEX	
4-035-834-02	SHEET	
*4-035-913-01	INDIVIDUAL CARTON	
*4-035-916-01	SPACER (A)	
*4-035-917-01	SPACER (B)	
*4-035-918-01	CUSHION	
4-035-834-02	SHEET	
4-396-203-01	SCREW (+B M3X12), PREVENTION	

60PP

PC-1271M
RM-1270S

SONY®
SERVICE MANUAL

AEP Model

SUPPLEMENT-1

File this supplement with the service manual.

INTRODUCTION

TTL output addition of the monitor out.

Added the TTL output to SYNC output of the monitor out after above serial number.
Set the SW 3 (TTL SW) on A board to TTL when use TTL mode.
Furthermore, the part number on A board is change to **9-902-387-02** that the serial number after 100,771.

Also able to use the part number **9-902-387-01** on A board cause by these parts are interchange able.

MICROFILM
9-978-253-81

Sony Corporation
B & I Systems Company

English
94JZ240848-1
Printed in Japan
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SERVICE MANUAL

MODEL	DEST.	MODEL
PC-1271M	AEP Serial No. 40,001 and later	RM-1270S

SUPPLEMENT-2

File this supplement with the service manual.

Subject: A, M2, N boards modified.

SIGNAL INTERFACE SWITCHER

SONY

SECTION 1
ELECTRICAL PARTS LIST

NOTE:

The components identified ⚠ marked are critical for safety.
Replace only with the part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK
	* 9-902-378-02	M2 BOARD, COMPLETE ******************************	
	7-623-208-22	WASHER, SPRING (M3)	
	7-682-149-04	SCREW +P M3X10	
	7-684-023-04	NUT (M3)	
		<RESISTOR BLOCK>	
BR1	1-235-977-11	RESISTOR BLOCK M09-1-472J	
		<CAPACITOR>	
C1	1-126-933-11	ELECT 100µF 20% 16V	
C2	1-124-915-11	ELECT 10µF 20% 63V	
C4	1-124-915-11	ELECT 10µF 20% 63V	
C6	1-124-915-11	ELECT 10µF 20% 63V	
C9	1-126-933-11	ELECT 100µF 20% 16V	
C10	9-996-186-01	CERAMIC 0.1µF 50V	
C11	1-124-915-11	ELECT 10µF 20% 63V	
C12	9-996-186-01	CERAMIC 0.1µF 50V	
C13	9-996-186-01	CERAMIC 0.1µF 50V	
C14	9-996-186-01	CERAMIC 0.1µF 50V	
C15	9-996-186-01	CERAMIC 0.1µF 50V	
		<CONNECTOR>	
CN6	* 9-996-198-01	PIN HEADER 26P	
CN7	* 9-902-390-01	PIN HEADER 34P	
CN8	* 9-902-864-01	PLUG, CONNECTOR B2P-VH	
CN9	* 9-902-865-01	PLUG, CONNECTOR B3P-VH	
CN10	* 1-564-594-11	PLUG, CONNECTOR 15P	
CN11	* 1-564-594-11	PLUG, CONNECTOR 15P	
CN12	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN13	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN14	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN15	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN16	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN17	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN18	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN19	* 1-564-515-11	PLUG, CONNECTOR 12P	
CN20	* 1-564-515-11	PLUG, CONNECTOR 12P	
		<DIODE>	
D1	8-719-820-59	DIODE 1S1588	
D2	8-719-820-59	DIODE 1S1588	

REF.NO.	PART NO.	DESCRIPTION	REMARK
D3	8-719-820-59	DIODE 1S1588	
D4	8-719-820-59	DIODE 1S1588	
D5	8-719-820-59	DIODE 1S1588	
D6	8-719-820-59	DIODE 1S1588	
D7	8-719-820-59	DIODE 1S1588	
D8	8-719-820-59	DIODE 1S1588	
		<IC>	
IC1	8-759-231-53	IC TA7805S	
IC2	8-759-701-59	IC NJM78M09FA	
IC3	8-759-354-51	IC HD75451AP	
IC4	8-759-354-53	IC HD75453P	
IC5	8-759-354-53	IC HD75453P	
IC6	8-759-354-53	IC HD75453P	
IC7	8-759-921-08	IC SN74HC02AN	
		<CONNECTOR>	
J9	* 1-568-985-11	CONNECTOR, FEMALE 64P	
J10	* 1-568-985-11	CONNECTOR, FEMALE 64P	
		<TRANSISTOR>	
Q1	8-729-202-99	TRANSISTOR 2SB1016Y	
Q2	8-729-117-59	TRANSISTOR 2SA1175	
Q3	8-729-178-59	TRANSISTOR 2SC2785	
Q4	8-729-178-59	TRANSISTOR 2SC2785	
Q5	8-729-178-59	TRANSISTOR 2SC2785	
		<RESISTOR>	
R1	1-216-361-00	METAL OXIDE 0.22 5% 2W	F
R2	1-249-410-11	CARBON 270 5% 1/4W	
R3	1-247-835-11	CARBON 1.5k 5% 1/4W	
R4	1-247-855-11	CARBON 10k 5% 1/4W	
R5	1-247-835-11	CARBON 1.5k 5% 1/4W	
R6	1-247-847-11	CARBON 4.7k 5% 1/4W	
R10	1-247-847-11	CARBON 4.7k 5% 1/4W	
R11	1-247-847-11	CARBON 4.7k 5% 1/4W	
R12	1-247-847-11	CARBON 4.7k 5% 1/4W	
R13	1-249-413-11	CARBON 470 5% 1/4W	
R14	1-249-413-11	CARBON 470 5% 1/4W	

M2 A

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<RELAY>			
RL1	9-901-738-01	RELAY A-12W-K			
RL2	9-901-738-01	RELAY A-12W-K			
RL3	9-901-738-01	RELAY A-12W-K			
RL4	9-901-738-01	RELAY A-12W-K			
RL5	9-901-738-01	RELAY A-12W-K			
RL6	9-901-738-01	RELAY A-12W-K			
RL7	9-901-738-01	RELAY A-12W-K			
RL8	9-901-738-01	RELAY A-12W-K			
RL9	9-901-738-01	RELAY A-12W-K			
RL10	9-901-738-01	RELAY A-12W-K			
RL11	9-901-738-01	RELAY A-12W-K			
RL12	9-901-738-01	RELAY A-12W-K			
RL13	9-901-738-01	RELAY A-12W-K			
RL14	9-901-738-01	RELAY A-12W-K			
RL15	9-901-738-01	RELAY A-12W-K			
RL16	9-901-738-01	RELAY A-12W-K			
RL17	9-901-738-01	RELAY A-12W-K			
RL18	9-901-738-01	RELAY A-12W-K			
RL19	9-901-738-01	RELAY A-12W-K			
RL20	9-901-738-01	RELAY A-12W-K			
RL21	9-901-738-01	RELAY A-12W-K			
RL22	9-901-738-01	RELAY A-12W-K			
RL23	9-901-738-01	RELAY A-12W-K			
RL24	9-901-738-01	RELAY A-12W-K			

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REF.NO.	PART NO.	DESCRIPTION			REMARK
	* 9-902-387-03	A BOARD, COMPLETE			
	7-622-207-05	NUT (M2.6)			
	7-627-557-48	SCREW +P M2.6X10			
		<CAPASITOR>			
C1	1-126-103-11	ELECT	470µF	20%	16V
C2	1-126-103-11	ELECT	470µF	20%	16V
C3	1-126-103-11	ELECT	470µF	20%	16V
C4	1-126-234-11	ELECT	2200µF	20%	16V
C5	1-126-234-11	ELECT	2200µF	20%	16V
C6	1-126-234-11	ELECT	2200µF	20%	16V
C7	1-124-915-11	ELECT	10µF	20%	63V
C8	9-996-186-01	CERAMIC	0.1µF		50V
C9	1-124-915-11	ELECT	10µF	20%	63V
C10	1-124-915-11	ELECT	10µF	20%	63V
C11	9-996-186-01	CERAMIC	0.1µF		50V
C12	9-996-186-01	CERAMIC	0.1µF		50V
C13	9-996-186-01	CERAMIC	0.1µF		50V
C14	9-996-186-01	CERAMIC	0.1µF		50V
C15	9-902-220-01	CERAMIC	0.01µF		50V
C16	9-996-186-01	CERAMIC	0.1µF		50V
C17	9-996-186-01	CERAMIC	0.1µF		50V
C18	9-996-186-01	CERAMIC	0.1µF		50V
C19	1-124-915-11	ELECT	10µF	20%	63V
C20	1-124-915-11	ELECT	10µF	20%	63V
C21	9-996-186-01	CERAMIC	0.1µF		50V
C23	1-124-360-00	ELECT	1000µF	20%	16V
C24	1-124-360-00	ELECT	1000µF	20%	16V
C26	1-126-933-11	ELECT	100µF	20%	16V
C27	1-124-360-00	ELECT	1000µF	20%	16V
C28	1-124-360-00	ELECT	1000µF	20%	16V
C29	1-124-915-11	ELECT	10µF	20%	63V
C30	1-124-915-11	ELECT	10µF	20%	63V
C31	1-124-915-11	ELECT	10µF	20%	63V
C32	1-124-915-11	ELECT	10µF	20%	63V
C33	9-996-186-01	CERAMIC	0.1µF		50V
C34	9-996-186-01	CERAMIC	0.1µF		50V
C35	9-996-186-01	CERAMIC	0.1µF		50V
C37	9-996-186-01	CERAMIC	0.1µF		50V
C40	1-102-510-11	CERAMIC	12pF	5%	50V
C41	1-102-510-11	CERAMIC	12pF	5%	50V
C42	1-102-510-11	CERAMIC	12pF	5%	50V
C43	1-102-935-00	CERAMIC	2pF	0.25pF	50V
C44	1-102-935-00	CERAMIC	2pF	0.25pF	50V
C45	1-102-935-00	CERAMIC	2pF	0.25pF	50V
C46	9-996-186-01	CERAMIC	0.1µF		50V
C47	9-996-186-01	CERAMIC	0.1µF		50V
		<DIODE>			
D1	8-719-820-59	DIODE 1S1588			
D2	8-719-820-59	DIODE 1S1588			
D3	8-719-820-59	DIODE 1S1588			
D4	8-719-820-59	DIODE 1S1588			
D5	8-719-820-59	DIODE 1S1588			
D6	8-719-820-59	DIODE 1S1588			
D7	8-719-820-59	DIODE 1S1588			
D8	8-719-820-59	DIODE 1S1588			
D9	8-719-820-59	DIODE 1S1588			
D10	8-719-820-59	DIODE 1S1588			
D11	8-719-820-59	DIODE 1S1588			
D16	8-719-820-59	DIODE 1S1588			
D17	8-719-820-59	DIODE 1S1588			
D18	8-719-820-59	DIODE 1S1588			
D19	8-719-820-59	DIODE 1S1588			
D20	8-719-820-59	DIODE 1S1588			
D21	8-719-820-59	DIODE 1S1588			
D22	8-719-820-59	DIODE 1S1588			
D23	8-719-820-59	DIODE 1S1588			
D24	8-719-100-34	DIODE RD5.6E			
D25	8-719-820-59	DIODE 1S1588			
D26	8-719-820-59	DIODE 1S1588			
D27	8-719-820-59	DIODE 1S1588			
D28	8-719-820-59	DIODE 1S1588			
D29	8-719-820-59	DIODE 1S1588			
D30	8-719-820-59	DIODE 1S1588			
D31	8-719-820-59	DIODE 1S1588			
D32	8-719-820-59	DIODE 1S1588			
		<IC>			
IC1	9-996-108-01	IC 4C0040E			
IC2	9-996-108-01	IC 4C0040E			
IC3	9-996-108-01	IC 4C0040E			
IC6	9-996-109-01	IC SN75175			
IC7	8-759-239-47	IC TC74HC123AP			
IC8	8-759-503-91	IC TL082ACP			
IC9	8-759-916-16	IC SN74HC08AN			
IC10	8-759-921-10	IC SN74HC86AN			

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC11	8-759-001-00	IC MC74HC132N	
IC12	8-759-947-59	IC PST523D	
IC14	8-759-354-53	IC HD75453P	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J1	*1-564-515-11	PLUG CONNECTOR 12P	
J2	*1-564-507-11	PLUG CONNECTOR 4P	
J3	*1-564-507-11	PLUG CONNECTOR 4P	
J4	*1-564-507-11	PLUG CONNECTOR 4P	
J5	*1-564-507-11	PLUG CONNECTOR 4P	
J6	*1-564-507-11	PLUG CONNECTOR 4P	
J9	*1-568-981-11	CONNECTOR, MALE 64P	
J101	9-996-175-01	CONNECTOR TSC7548-01-201 (Y/C)	
J102	9-996-176-01	CONNECTOR, BNC (VIDEO)	
J103	9-996-179-01	PIN, JACK (L)	
J104	9-996-180-01	PIN, JACK (R)	
J105	9-902-393-01	JACK (CONTROL S IN/OUT)	
J106	9-996-176-01	CONNECTOR, BNC (R)	
J107	9-996-176-01	CONNECTOR, BNC (G)	
J108	9-996-176-01	CONNECTOR, BNC (B)	
J109	9-996-176-01	CONNECTOR, BNC (VD)	
J110	9-996-176-01	CONNECTOR, BNC (SYNC/HD)	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-178-59	TRANSISTOR 2SC2785	
Q2	8-729-178-59	TRANSISTOR 2SC2785	
Q3	8-729-117-59	TRANSISTOR 2SA1175	
Q4	8-729-117-59	TRANSISTOR 2SA1175	
Q5	8-729-117-59	TRANSISTOR 2SA1175	
Q6	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q7	8-729-202-55	TRANSISTOR 2SA950-O	
Q8	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q9	8-729-202-55	TRANSISTOR 2SA950-O	
Q10	8-729-178-59	TRANSISTOR 2SC2785	
Q11	8-729-117-59	TRANSISTOR 2SA1175	
Q12	8-729-117-59	TRANSISTOR 2SA1175	
Q13	8-729-178-59	TRANSISTOR 2SC2785	
Q14	8-729-117-59	TRANSISTOR 2SA1175	
Q15	8-729-117-59	TRANSISTOR 2SA1175	
Q16	8-729-178-59	TRANSISTOR 2SC2785	
Q17	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q18	8-729-178-59	TRANSISTOR 2SC2785	
Q19	8-729-178-59	TRANSISTOR 2SC2785	
Q20	8-729-178-59	TRANSISTOR 2SC2785	
Q21	8-729-212-02	TRANSISTOR 2SC2120-Y	
Q22	8-729-178-59	TRANSISTOR 2SC2785	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1	1-249-408-11	CARBON	180	5%	1/4W	
R2	1-249-408-11	CARBON	180	5%	1/4W	
R3	1-249-408-11	CARBON	180	5%	1/4W	
R4	1-247-804-11	CARBON	75	5%	1/4W	
R5	1-247-804-11	CARBON	75	5%	1/4W	
R6	1-247-804-11	CARBON	75	5%	1/4W	
R7	1-247-855-11	CARBON	10k	5%	1/4W	
R8	1-247-847-11	CARBON	4.7k	5%	1/4W	
R9	1-247-847-11	CARBON	4.7k	5%	1/4W	
R10	1-249-397-11	CARBON	22	5%	1/4W	
R11	1-249-397-11	CARBON	22	5%	1/4W	
R12	1-247-807-11	CARBON	100	5%	1/4W	
R13	1-247-807-11	CARBON	100	5%	1/4W	
R14	1-247-891-00	CARBON	330k	5%	1/4W	
R15	1-247-891-00	CARBON	330k	5%	1/4W	
R16	1-247-847-11	CARBON	4.7k	5%	1/4W	
R17	1-247-847-11	CARBON	4.7k	5%	1/4W	
R18	1-247-847-11	CARBON	4.7k	5%	1/4W	
R19	1-249-417-11	CARBON	1k	5%	1/4W	
R20	1-249-417-11	CARBON	1k	5%	1/4W	
R21	1-249-413-11	CARBON	470	5%	1/4W	
R22	1-247-841-11	CARBON	2.7k	5%	1/4W	
R23	1-249-413-11	CARBON	470	5%	1/4W	
R24	1-249-418-11	CARBON	1.2k	5%	1/4W	
R25	1-247-871-11	CARBON	47k	5%	1/4W	
R26	1-247-871-11	CARBON	47k	5%	1/4W	
R27	1-247-847-11	CARBON	4.7k	5%	1/4W	
R28	1-247-847-11	CARBON	4.7k	5%	1/4W	
R29	1-247-855-11	CARBON	10k	5%	1/4W	
R30	1-247-835-11	CARBON	1.5k	5%	1/4W	
R31	1-249-432-11	CARBON	18k	5%	1/4W	
R32	1-249-420-11	CARBON	1.8k	5%	1/4W	
R33	1-247-835-11	CARBON	1.5k	5%	1/4W	
R34	1-249-432-11	CARBON	18k	5%	1/4W	
R35	1-249-420-11	CARBON	1.8k	5%	1/4W	
R36	1-247-839-11	CARBON	2.2k	5%	1/4W	
R37	1-249-389-11	CARBON	4.7	5%	1/4W	
R38	1-249-389-11	CARBON	4.7	5%	1/4W	
R39	1-247-839-11	CARBON	2.2k	5%	1/4W	
R40	1-249-389-11	CARBON	4.7	5%	1/4W	
R41	1-249-389-11	CARBON	4.7	5%	1/4W	
R42	1-247-804-11	CARBON	75	5%	1/4W	
R43	1-247-804-11	CARBON	75	5%	1/4W	
R44	1-247-855-11	CARBON	10k	5%	1/4W	
R45	1-249-389-11	CARBON	4.7	5%	1/4W	
R46	1-249-389-11	CARBON	4.7	5%	1/4W	
R48	1-249-389-11	CARBON	4.7	5%	1/4W	
R49	1-249-389-11	CARBON	4.7	5%	1/4W	
R50	1-247-804-11	CARBON	75	5%	1/4W	
R51	1-247-804-11	CARBON	75	5%	1/4W	
R52	1-247-871-11	CARBON	47k	5%	1/4W	
R53	1-247-847-11	CARBON	4.7k	5%	1/4W	
R54	1-249-417-11	CARBON	1k	5%	1/4W	
R55	1-249-417-11	CARBON	1k	5%	1/4W	
R56	1-215-867-51	CARBON	470	5%	1W	F
R57	1-247-847-11	CARBON	4.7k	5%	1/4W	
R58	1-247-839-11	CARBON	2.2k	5%	1/4W	
R59	1-247-839-11	CARBON	2.2k	5%	1/4W	
R61	1-247-847-11	CARBON	4.7k	5%	1/4W	
R62	1-249-424-11	CARBON	3.9k	5%	1/4W	
R63	1-249-424-11	CARBON	3.9k	5%	1/4W	
R64	1-249-417-11	CARBON	1k	5%	1/4W	
R65	1-249-417-11	CARBON	1k	5%	1/4W	
R66	1-249-411-11	CARBON	330	5%	1/4W	
R67	1-249-411-11	CARBON	330	5%	1/4W	
R68	1-249-411-11	CARBON	330	5%	1/4W	
R69	1-260-090-21	CARBON	180	5%	1/2W	F
R70	1-260-090-21	CARBON	180	5%	1/2W	F
R71	1-249-397-11	CARBON	22	5%	1/4W	

A N

REF.NO.	PART NO.	DESCRIPTION			REMARK
R72	1-249-397-11	CARBON	22	5%	1/4W
R73	1-247-855-11	CARBON	10k	5%	1/4W
R74	1-247-855-11	CARBON	10k	5%	1/4W
R75	1-247-855-11	CARBON	10k	5%	1/4W
R76	1-247-855-11	CARBON	10k	5%	1/4W
R78	1-247-855-11	CARBON	10k	5%	1/4W
R79	1-247-855-11	CARBON	10k	5%	1/4W
R80	1-247-855-11	CARBON	10k	5%	1/4W
	<RELAY>				
RL1	9-901-738-01	RELAY A-12W-K			
RL2	9-901-738-01	RELAY A-12W-K			
RL3	9-901-738-01	RELAY A-12W-K			
RL4	9-901-738-01	RELAY A-12W-K			
RL5	9-901-738-01	RELAY A-12W-K			
RL6	9-901-738-01	RELAY A-12W-K			
RL7	9-901-738-01	RELAY A-12W-K			
	<SWITCH>				
SW1	9-996-152-01	SWITCH, SLIDE (THROUGH/COMP)			
SW2	9-996-152-01	SWITCH, SLIDE (1Vp-p/2Vp-p)			
SW3	9-996-152-01	SWITCH, SLIDE (ANALOG/TTL)			

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	* 9-902-388-02	N BOARD, COMPLETE *****************************			
	7-622-207-05	NUT (M2.6)			
	7-627-557-48	SCREW +P M2.6X10			
	9-884-111-01	SW1 BOARD, COMPLETE			
	<CAPASITOR>				
C1	1-124-915-11	ELECT	10µF	20%	63V
C2	1-126-933-11	ELECT	100µF	20%	16V
C3	1-126-103-11	ELECT	470µF	20%	16V
C4	1-126-103-11	ELECT	470µF	20%	16V
C5	1-126-103-11	ELECT	470µF	20%	16V
C6	1-124-915-11	ELECT	10µF	20%	63V
C7	1-124-915-11	ELECT	10µF	20%	63V
C10	9-996-186-01	CERAMIC	0.1µF		50V
C11	1-126-933-11	ELECT	100µF	20%	16V
C101	1-126-933-11	ELECT	100µF	20%	16V
C102	1-102-935-00	CERAMIC	2pF	0.25pF	50V
C103	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C104	1-102-852-91	CERAMIC	47pF	5%	50V
C105	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C106	9-996-186-01	CERAMIC	0.1µF		50V
C107	1-104-664-11	ELECT	47µF	20%	16V
C110	1-126-933-11	ELECT	100µF	20%	16V
C111	9-996-186-01	CERAMIC	0.1µF		50V
C112	9-996-186-01	CERAMIC	0.1µF		50V
C113	9-996-186-01	CERAMIC	0.1µF		50V
C114	9-996-186-01	CERAMIC	0.1µF		50V
C115	1-124-915-11	ELECT	10µF	20%	63V
C116	1-102-514-11	CERAMIC	22pF	5%	50V
C117	1-124-360-00	ELECT	1000µF	20%	16V
C118	1-124-360-00	ELECT	1000µF	20%	16V
C119	9-996-186-01	CERAMIC	0.1µF		50V
C120	9-996-186-01	CERAMIC	0.1µF		50V
C121	1-102-510-11	CERAMIC	12pF	5%	50V
C201	1-126-933-11	ELECT	100µF	20%	16V
C202	1-102-935-00	CERAMIC	2pF	0.25pF	50V
C203	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C204	1-102-852-91	CERAMIC	47pF	5%	50V
C205	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C206	9-996-186-01	CERAMIC	0.1µF		50V
C207	1-104-664-11	ELECT	47µF	20%	16V
C210	1-126-933-11	ELECT	100µF	20%	16V
C211	9-996-186-01	CERAMIC	0.1µF		50V
C212	9-996-186-01	CERAMIC	0.1µF		50V
C213	9-996-186-01	CERAMIC	0.1µF		50V
C214	9-996-186-01	CERAMIC	0.1µF		50V
C215	1-124-915-11	ELECT	10µF	20%	63V
C216	1-102-514-11	CERAMIC	22pF	5%	50V
C217	1-124-360-00	ELECT	1000µF	20%	16V
C218	1-124-360-00	ELECT	1000µF	20%	16V
C219	9-996-186-01	CERAMIC	0.1µF		50V
C220	9-996-186-01	CERAMIC	0.1µF		50V
C221	1-102-510-11	CERAMIC	12pF	5%	50V
C301	1-126-933-11	ELECT	100µF	20%	16V
C302	1-102-935-00	CERAMIC	2pF	0.25pF	50V
C303	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C304	1-102-852-91	CERAMIC	47pF	5%	50V
C305	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C306	9-996-186-01	CERAMIC	0.1µF		50V
C307	1-104-664-11	ELECT	47µF	20%	16V
C310	1-126-933-11	ELECT	100µF	20%	16V
C311	9-996-186-01	CERAMIC	0.1µF		50V
C312	9-996-186-01	CERAMIC	0.1µF		50V
C313	9-996-186-01	CERAMIC	0.1µF		50V
C314	9-996-186-01	CERAMIC	0.1µF		50V
C315	1-124-915-11	ELECT	10µF	20%	63V
C316	1-102-514-11	CERAMIC	22pF	5%	50V
C317	1-124-360-00	ELECT	1000µF	20%	16V
C318	1-124-360-00	ELECT	1000µF	20%	16V
C319	9-996-186-01	CERAMIC	0.1µF		50V
C320	9-996-186-01	CERAMIC	0.1µF		50V
C321	1-102-510-11	CERAMIC	12pF	5%	50V
	<DIODE>				
D1	8-719-820-59	DIODE 1S1588			
D2	8-719-820-59	DIODE 1S1588			
D3	8-719-820-59	DIODE 1S1588			
D4	8-719-820-59	DIODE 1S1588			
D5	8-719-820-59	DIODE 1S1588			
D6	8-719-820-59	DIODE 1S1588			
D7	8-719-820-59	DIODE 1S1588			
D8	8-719-820-59	DIODE 1S1588			
D9	8-719-820-59	DIODE 1S1588			
D10	8-719-820-59	DIODE 1S1588			
D11	8-719-820-59	DIODE 1S1588			
D12	8-719-820-59	DIODE 1S1588			

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<IC>			
IC2	9-884-253-01	IC EL2171			
IC3	9-884-253-01	IC EL2171			
IC4	9-884-253-01	IC EL2171			
IC5	8-759-503-91	IC TL082ACP			
IC6	8-759-708-05	IC NJM78L05A			
IC7	8-759-503-91	IC TL082ACP			
IC8	8-759-503-91	IC TL082ACP			
		<CONNECTOR>			
J10	*1-568-981-11	CONNECTOR, MALE 64P			
J17	*1-564-507-11	PLUG, CONNECTOR 4P			
J18	*1-564-507-11	PLUG, CONNECTOR 4P			
J19	*1-564-507-11	PLUG, CONNECTOR 4P			
		<TRANSISTOR>			
Q1	8-729-178-59	TRANSISTOR 2SC2785			
Q2	8-729-117-59	TRANSISTOR 2SA1175			
Q3	8-729-178-59	TRANSISTOR 2SC2785			
Q4	8-729-178-59	TRANSISTOR 2SC2785			
Q5	8-729-117-59	TRANSISTOR 2SA1175			
Q6	8-729-117-59	TRANSISTOR 2SA1175			
Q7	8-729-178-59	TRANSISTOR 2SC2785			
Q8	8-729-178-59	TRANSISTOR 2SC2785			
Q9	8-729-178-59	TRANSISTOR 2SC2785			
Q101	8-729-190-12	TRANSISTOR 2SC2901-K			
Q102	8-729-103-19	TRANSISTOR 2SA1206-K1			
Q103	8-729-117-59	TRANSISTOR 2SA1175			
Q104	8-729-117-59	TRANSISTOR 2SA1175			
Q201	8-729-190-12	TRANSISTOR 2SC2901-K			
Q202	8-729-103-19	TRANSISTOR 2SA1206-K1			
Q203	8-729-117-59	TRANSISTOR 2SA1175			
Q204	8-729-117-59	TRANSISTOR 2SA1175			
Q301	8-729-190-12	TRANSISTOR 2SC2901-K			
Q302	8-729-103-19	TRANSISTOR 2SA1206-K1			
Q303	8-729-117-59	TRANSISTOR 2SA1175			
Q304	8-729-117-59	TRANSISTOR 2SA1175			
		<RESISTOR>			
R1	1-247-847-11	CARBON	4.7k	5%	1/4W
R2	1-247-825-11	CARBON	560	5%	1/4W
R3	1-249-411-11	CARBON	330	5%	1/4W
R4	1-247-855-11	CARBON	10k	5%	1/4W
R5	1-247-855-11	CARBON	10k	5%	1/4W
R6	1-247-855-11	CARBON	10k	5%	1/4W
R7	1-247-825-11	CARBON	560	5%	1/4W
R8	1-247-825-11	CARBON	560	5%	1/4W
R9	1-249-411-11	CARBON	330	5%	1/4W
R10	1-249-411-11	CARBON	330	5%	1/4W
R11	1-247-807-11	CARBON	100	5%	1/4W
R12	1-247-807-11	CARBON	100	5%	1/4W
R13	1-247-811-11	CARBON	150	5%	1/4W
R14	1-247-811-11	CARBON	150	5%	1/4W
R15	1-249-418-11	CARBON	1.2k	5%	1/4W
R16	1-249-418-11	CARBON	1.2k	5%	1/4W
R17	1-247-835-11	CARBON	1.5k	5%	1/4W
R18	1-247-835-11	CARBON	1.5k	5%	1/4W
R19	1-249-439-11	CARBON	68k	5%	1/4W
R20	1-249-439-11	CARBON	68k	5%	1/4W
R21	1-247-871-11	CARBON	47k	5%	1/4W
R22	1-247-871-11	CARBON	47k	5%	1/4W
R23	1-247-879-11	CARBON	100k	5%	1/4W
R24	1-247-879-11	CARBON	100k	5%	1/4W
R25	1-249-417-11	CARBON	1k	5%	1/4W
R26	1-247-783-11	CARBON	10	5%	1/4W
R27	1-249-401-11	CARBON	47	5%	1/4W
R28	1-249-401-11	CARBON	47	5%	1/4W
R29	1-247-855-11	CARBON	10k	5%	1/4W
R101	1-247-847-11	CARBON	4.7k	5%	1/4W
R102	1-247-847-11	CARBON	4.7k	5%	1/4W
R103	1-247-855-11	CARBON	10k	5%	1/4W
R104	1-247-783-11	CARBON	10	5%	1/4W
R105	1-215-390-00	METAL	51	1%	1/4W
R106	1-215-391-00	METAL	56	1%	1/4W
R107	1-215-394-00	METAL	75	1%	1/4W
R108	1-215-394-00	METAL	75	1%	1/4W
R109	1-215-403-00	METAL	180	1%	1/4W
R110	1-215-409-00	METAL	330	1%	1/4W
R111	1-215-421-00	METAL	1k	1%	1/4W
R112	1-215-427-00	METAL	1.8k	1%	1/4W
R113	1-215-388-00	METAL	43	1%	1/4W
R114	1-249-417-11	CARBON	1k	5%	1/4W
R115	1-247-839-11	CARBON	2.2k	5%	1/4W
R116	1-215-395-00	METAL	82	1%	1/4W
R117	1-215-425-00	METAL	1.5k	1%	1/4W
R118	1-215-425-00	METAL	1.5k	1%	1/4W
R119	1-215-493-00	METAL	1M	1%	1/4W
R120	1-215-493-00	METAL	1M	1%	1/4W
R121	1-247-879-11	CARBON	100k	5%	1/4W
R122	1-247-863-11	CARBON	22k	5%	1/4W
R123	1-215-418-00	METAL	750	1%	1/4W
R124	1-215-394-11	METAL	75	1%	1/4W
R125	1-215-443-00	METAL	8.2k	1%	1/4W
R126	1-249-401-11	CARBON	47	5%	1/4W
R201	1-247-847-11	CARBON	4.7k	5%	1/4W
R202	1-247-847-11	CARBON	4.7k	5%	1/4W
R203	1-247-855-11	CARBON	10k	5%	1/4W
R204	1-247-783-11	CARBON	10	5%	1/4W
R205	1-215-390-00	METAL	51	1%	1/4W
R206	1-215-391-00	METAL	56	1%	1/4W
R207	1-215-394-00	METAL	75	1%	1/4W
R208	1-215-394-00	METAL	75	1%	1/4W
R209	1-215-403-00	METAL	180	1%	1/4W
R210	1-215-409-00	METAL	330	1%	1/4W
R211	1-215-421-00	METAL	1k	1%	1/4W
R212	1-215-427-00	METAL	1.8k	1%	1/4W
R213	1-215-388-00	METAL	43	1%	1/4W
R214	1-249-417-11	CARBON	1k	5%	1/4W
R215	1-247-839-11	CARBON	2.2k	5%	1/4W
R216	1-215-395-00	METAL	82	1%	1/4W
R217	1-215-425-00	METAL	1.5k	1%	1/4W
R218	1-215-425-00	METAL	1.5k	1%	1/4W
R219	1-215-493-00	METAL	1M	1%	1/4W
R220	1-215-493-00	METAL	1M	1%	1/4W
R221	1-247-879-11	CARBON	100k	5%	1/4W
R222	1-247-863-11	CARBON	22k	5%	1/4W
R223	1-215-418-00	METAL	750	1%	1/4W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R224	1-215-394-11	METAL	75	1%	1/4W
R225	1-215-443-00	METAL	8.2k	1%	1/4W
R226	1-249-401-11	CARBON	47	5%	1/4W
R301	1-247-847-11	CARBON	4.7k	5%	1/4W
R302	1-247-847-11	CARBON	4.7k	5%	1/4W
R303	1-247-855-11	CARBON	10k	5%	1/4W
R304	1-247-783-11	CARBON	10	5%	1/4W
R305	1-215-390-00	METAL	51	1%	1/4W
R306	1-215-391-00	METAL	56	1%	1/4W
R307	1-215-394-00	METAL	75	1%	1/4W
R308	1-215-394-00	METAL	75	1%	1/4W
R309	1-215-403-00	METAL	180	1%	1/4W
R310	1-215-409-00	METAL	330	1%	1/4W
R311	1-215-421-00	METAL	1k	1%	1/4W
R312	1-215-427-00	METAL	1.8k	1%	1/4W
R313	1-215-388-00	METAL	43	1%	1/4W
R314	1-249-417-11	CARBON	1k	5%	1/4W
R315	1-247-839-11	CARBON	2.2k	5%	1/4W
R316	1-215-395-00	METAL	82	1%	1/4W
R317	1-215-425-00	METAL	1.5k	1%	1/4W
R318	1-215-425-00	METAL	1.5k	1%	1/4W
R319	1-215-493-00	METAL	1M	1%	1/4W
R320	1-215-493-00	METAL	1M	1%	1/4W
R321	1-247-879-11	CARBON	100k	5%	1/4W
R322	1-247-863-11	CARBON	22k	5%	1/4W
R323	1-215-418-00	METAL	750	1%	1/4W
R324	1-215-394-11	METAL	75	1%	1/4W
R325	1-215-443-00	METAL	8.2k	1%	1/4W
R326	1-249-401-11	CARBON	47	5%	1/4W

<RELAY>

REF.NO.	PART NO.	DESCRIPTION
RL4	9-901-738-01	RELAY A-12W-K
RL101	9-901-738-01	RELAY A-12W-K
RL102	9-901-738-01	RELAY A-12W-K
RL103	9-901-738-01	RELAY A-12W-K
RL201	9-901-738-01	RELAY A-12W-K
RL202	9-901-738-01	RELAY A-12W-K
RL203	9-901-738-01	RELAY A-12W-K
RL301	9-901-738-01	RELAY A-12W-K
RL302	9-901-738-01	RELAY A-12W-K
RL303	9-901-738-01	RELAY A-12W-K

<SWITCH>

REF.NO.	PART NO.	DESCRIPTION
SW1	9-884-254-01	SWITCH, ROTARY (MODE)
SW2	9-884-255-01	SWITCH, SLIDE (MODE SELECT)

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T1	9-902-395-02	TRANSFORMER ST-71P
T2	9-902-395-02	TRANSFORMER ST-71P

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MISCELLANEOUS
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	8-759-062-73	IC MB8855-1393N	
	8-759-634-91	IC M50461-157SP	
	⚠9-902-345-01	FUSE (3A 125V)	
	⚠9-939-583-01	SWITCHING REGURATOR	
	1-465-334-11	REMOTE COMMANDER (RM-1270S)	

SECTION 2
DIAGRAMS

2-1. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

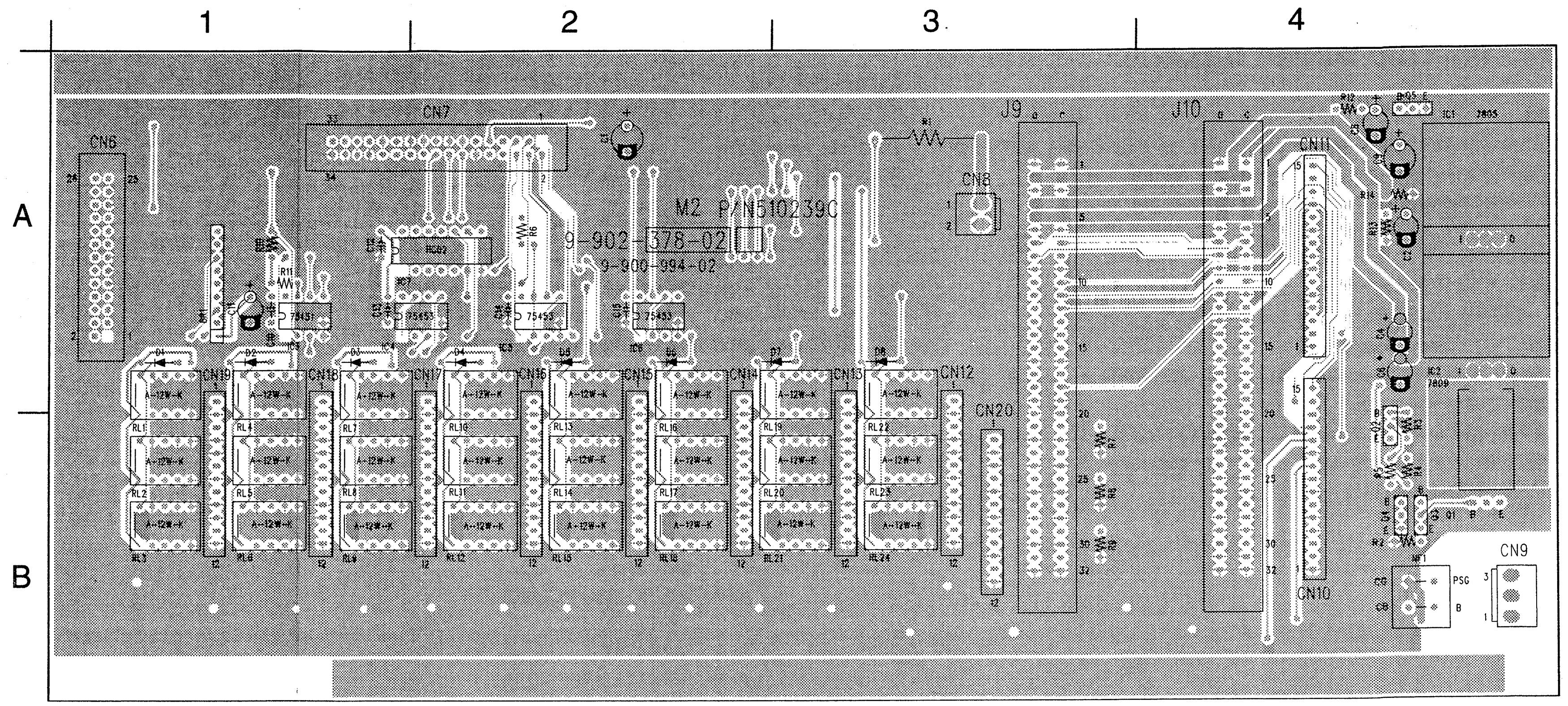
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics.
- All electrolytics are in 50 V unless otherwise specified.
- All resistors are in ohms, 1/4 W in resistance, 1/10W in chip resistance.
  kΩ = 1000 Ω, MΩ = 1000k Ω
- —▭— : nonflammable resistor.
- ▭ : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Voltage value is the reference value between it and the earth, when Color bar signal is received from color bar generator.
- Unit of voltage values is V (volt).
- ⊏V⊐ : B + line

Reference information

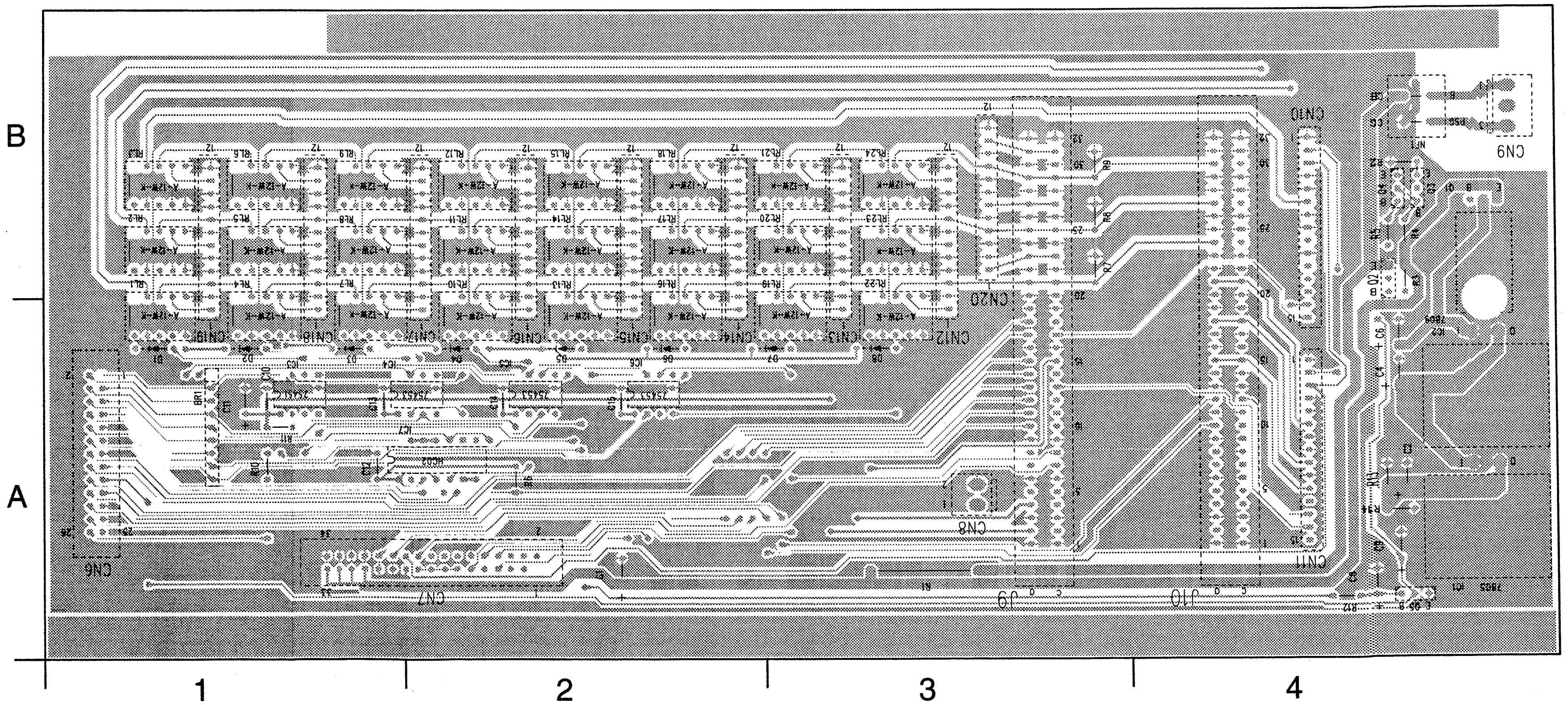
RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFRAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

M2 BOARD

D1	A-1
D2	A-1
D3	A-1
D4	A-2
D5	A-2
D6	A-2
D7	A-3
D8	A-3
IC1	A-4
IC2	B-4
IC3	A-1
IC4	A-2
IC5	A-2
IC6	A-2
IC7	A-2
Q1	B-4
Q2	B-4
Q3	B-4
Q4	B-4
Q5	A-4

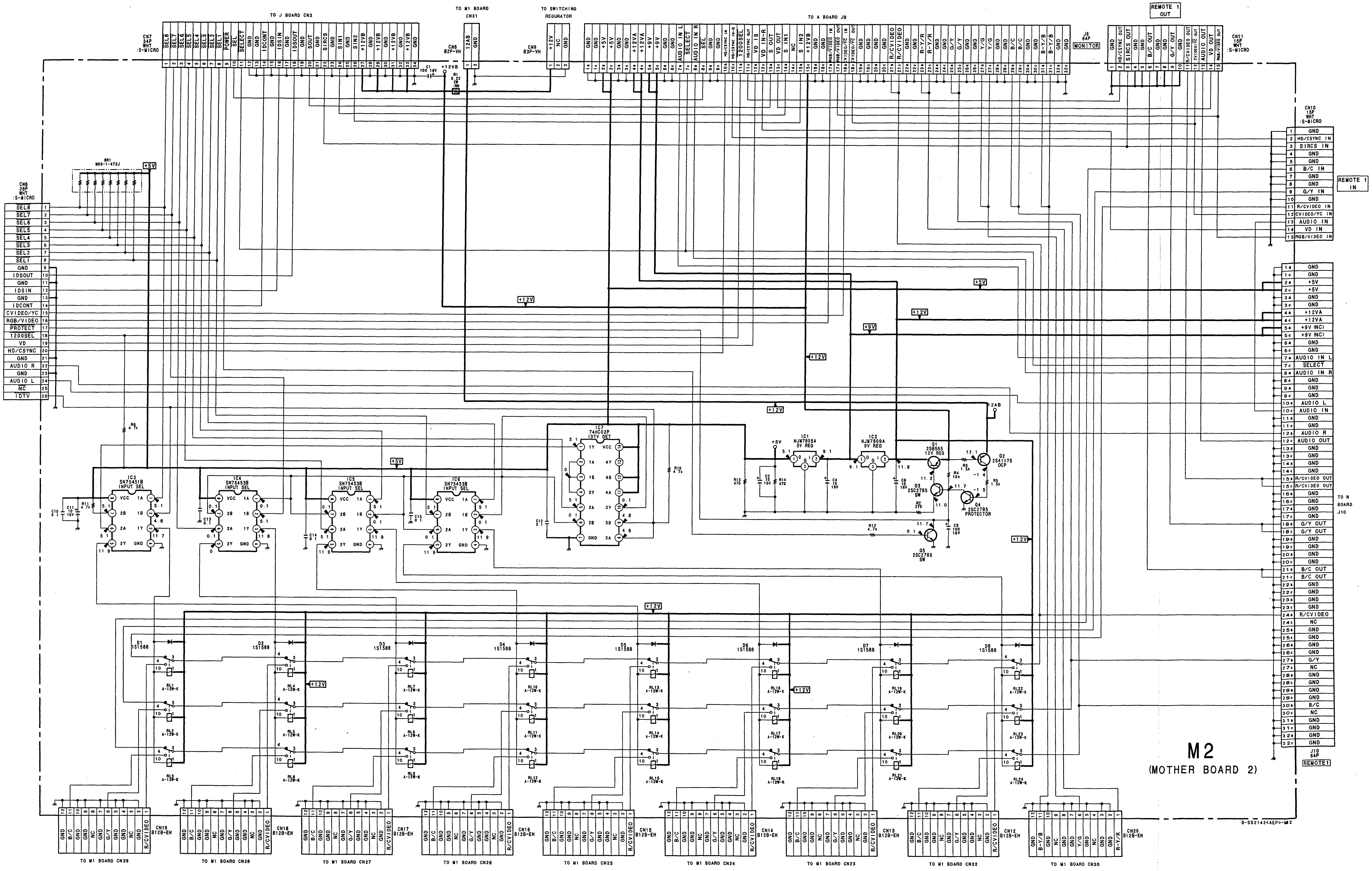

1
2
3
4
A
B
CN6
CN7
J9
J10
CN8
CN11
CN10
CN9
CN20
CN12
CN13
CN14
CN15
CN16
CN17
CN18
CN19
M2 P/N5102390
9-902-378-02
9-900-994-02

M2 – A SIDE –



M2 – B SIDE –

M2 M2



TO J BOARD CN3
TO M1 BOARD CN31
TO SWITCHING REGURATOR
TO A BOARD J9
REMOTE 1 OUT
CN7 34P WHT :S-MICRO
CN8 B2P-VH
CN9 B3P-VH
J9 64P MONITOR
CN11 15P WHT :S-MICRO
CN10 15P WHT :S-MICRO
REMOTE 1 IN
CN6 26P WHT :S-MICRO
TO M1 BOARD CN21
RB1 M09-1-472J
IC3 SN75451B INPUT SEL
IC4 SN75453B INPUT SEL
IC5 SN75453B INPUT SEL
IC6 SN75453B INPUT SEL
IC7 74HC02P IDTV DET
IC1 NJM7805A 5V REG
IC2 NJM7809A 9V REG
Q1 2SB595 12V REG
Q2 2SA1175 OCP
Q3 2SC2785 SW
Q4 2SC2785 PROTECTOR
Q5 2SC2785 SW
+5V
+12V
+9V
+12AB
+12VB
D1 1S1588
D2 1S1588
D3 1S1588
D4 1S1588
D5 1S1588
D6 1S1588
D7 1S1588
D8 1S1588
RL1 A-12W-K
CN19 B12B-EH
CN18 B12B-EH
CN17 B12B-EH
CN16 B12B-EH
CN15 B12B-EH
CN14 B12B-EH
CN13 B12B-EH
CN12 B12B-EH
CN20 B12B-EH
TO M1 BOARD CN29
TO M1 BOARD CN28
TO M1 BOARD CN27
TO M1 BOARD CN26
TO M1 BOARD CN25
TO M1 BOARD CN24
TO M1 BOARD CN23
TO M1 BOARD CN22
TO M1 BOARD CN30
TO N BOARD J10
J10 64P REMOTE1
M2 (MOTHER BOARD 2)
B-SS2142<AEP>-M2
1
2
3
4
5

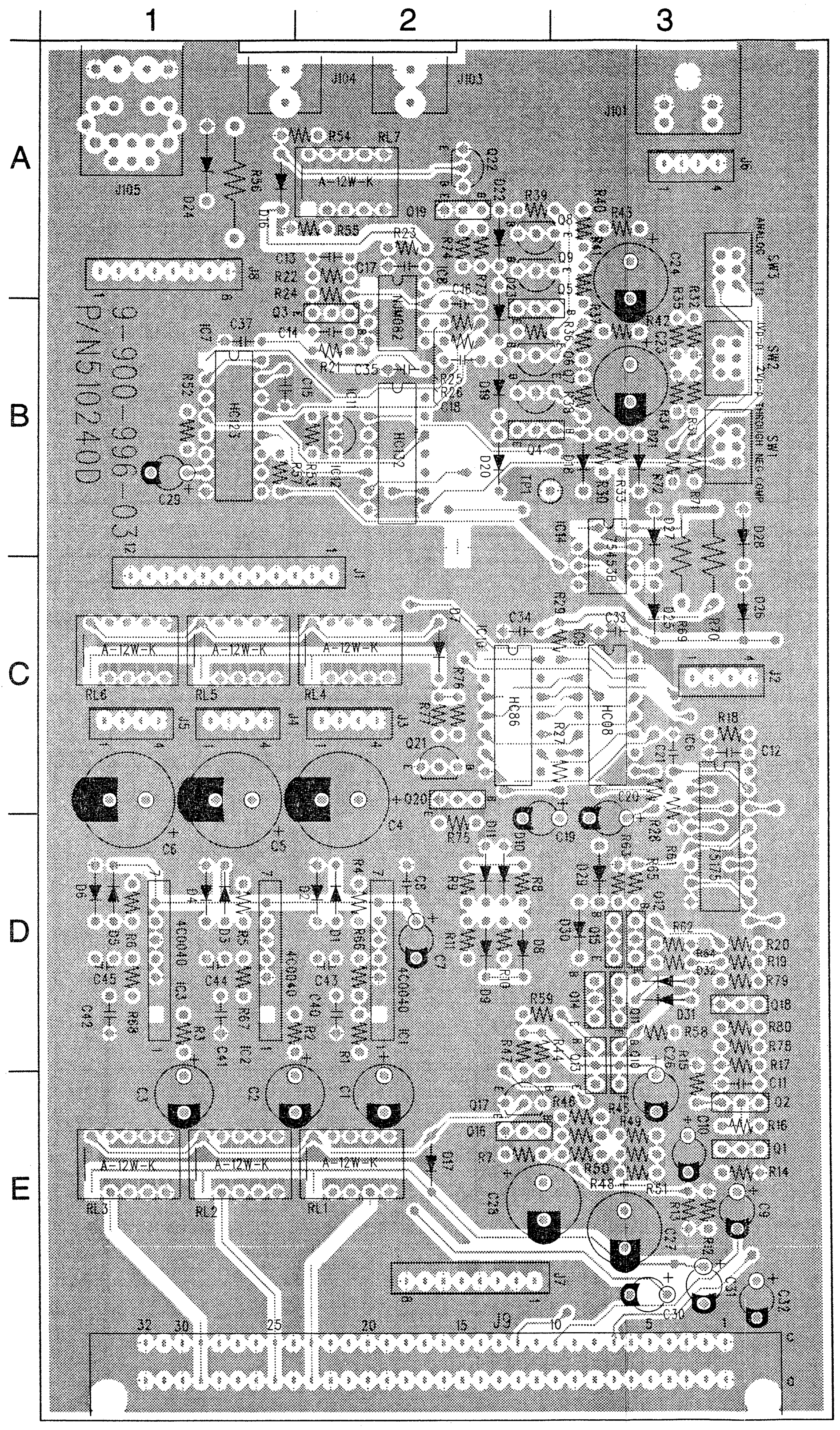
PC-1271M

A B C D E F G H

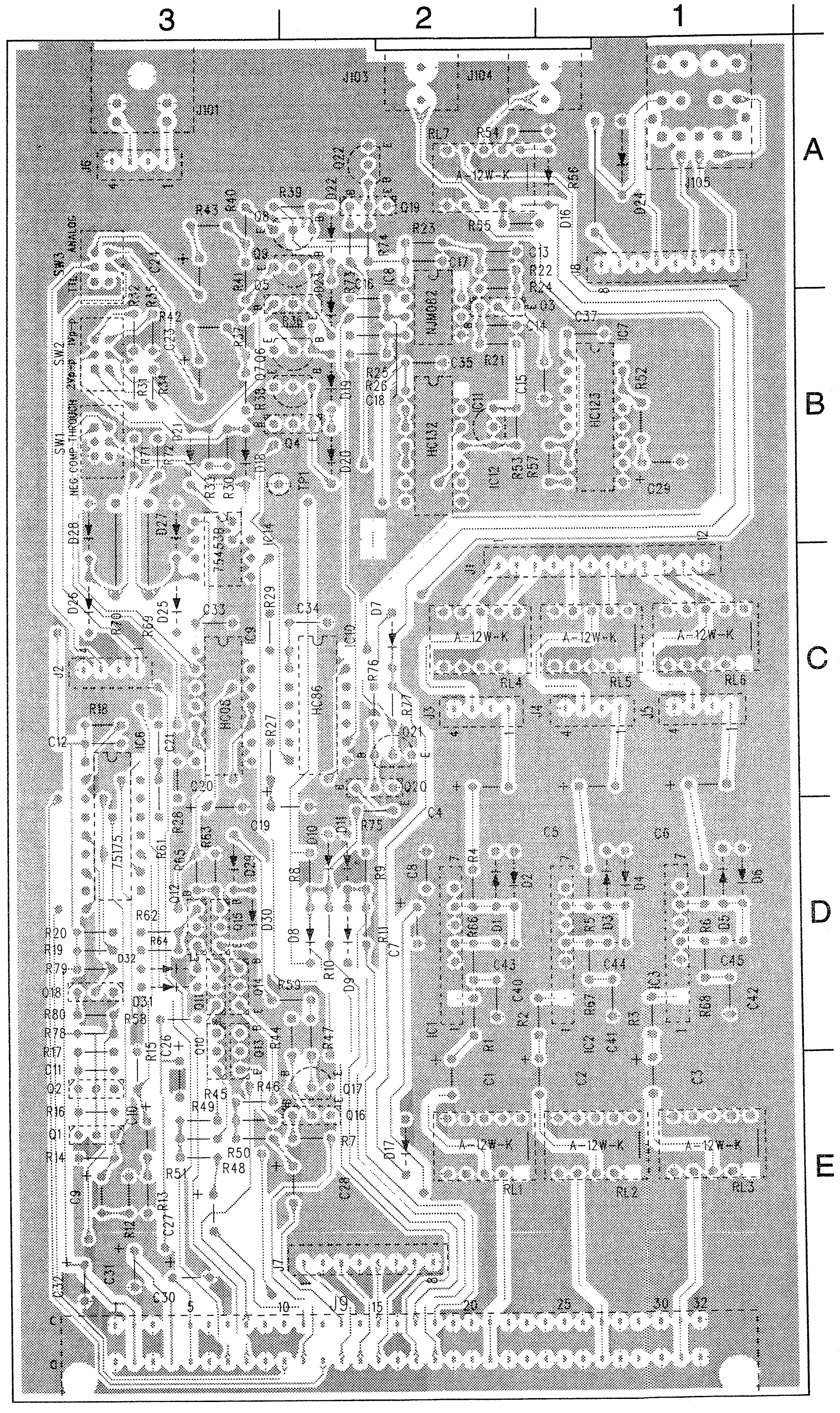
A A

A BOARD

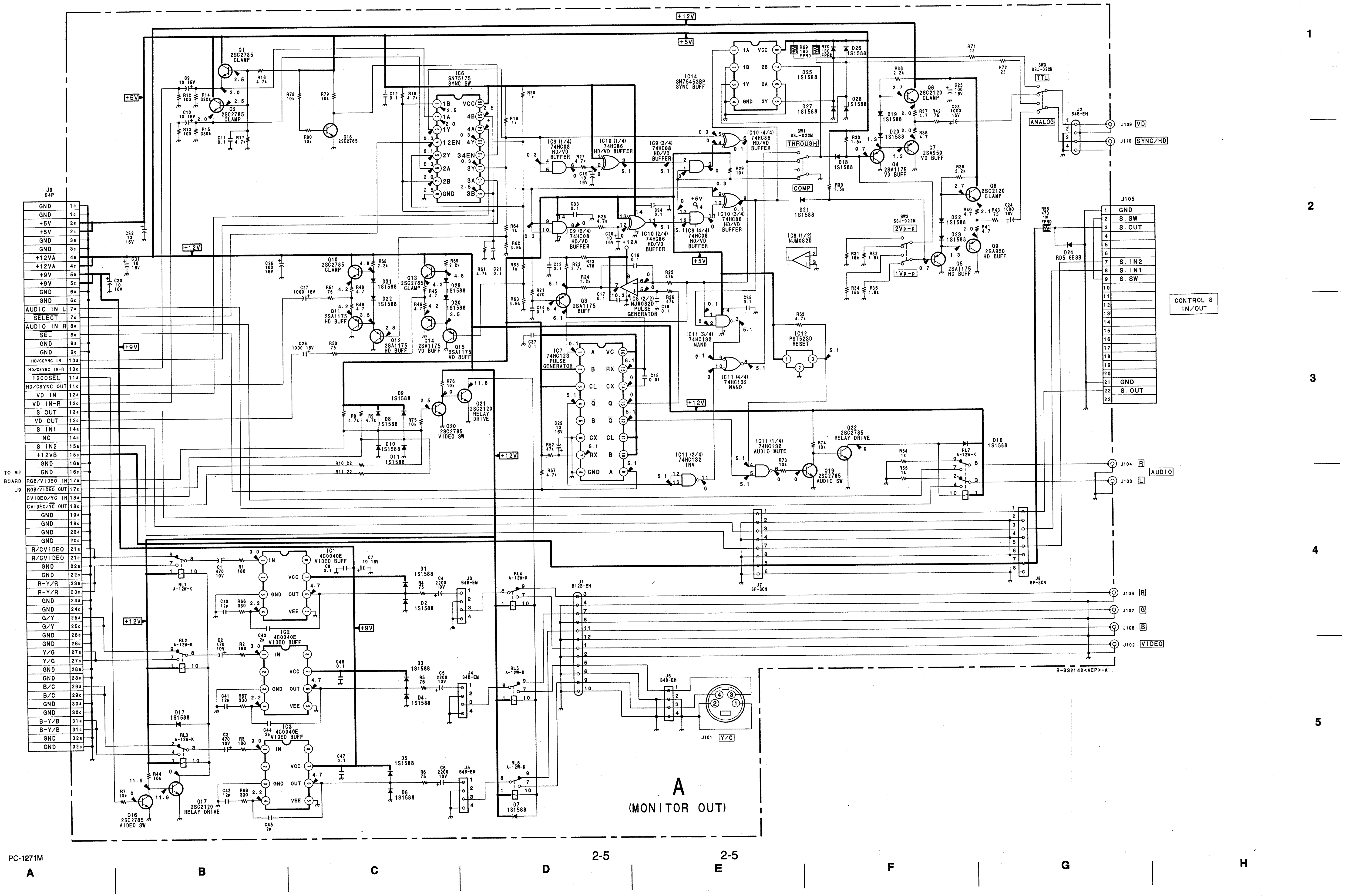
D1	D-2
D2	D-2
D3	D-1
D4	D-1
D5	D-1
D6	D-1
D7	C-2
D8	D-2
D9	D-2
D10	D-2
D11	D-2
D16	A-1
D17	E-2
D18	B-3
D19	B-2
D20	B-2
D21	B-3
D22	A-2
D23	B-2
D24	A-1
D25	C-3
D26	C-3
D27	B-3
D28	B-3
D29	D-3
D30	D-3
D31	D-3
D32	D-3
IC1	D-2
IC2	D-1
IC3	D-1
IC6	C-3
IC7	B-1
IC8	A-2
IC9	C-3
IC10	C-2
IC11	B-2
IC12	B-2
IC14	B-3
Q1	E-3
Q2	E-2
Q3	B-2
Q4	B-2
Q5	B-2
Q6	B-2
Q7	B-2
Q8	A-2
Q9	A-2
Q10	D-3
Q11	D-3
Q12	D-3
Q13	D-3
Q14	D-3
Q15	D-3
Q16	E-2
Q17	E-2
Q18	D-3
Q19	A-2
Q20	C-2
Q21	C-2
Q22	A-2


1
2
3
A
B
C
D
E
J105
J104
J103
J101
RL7
R54
A-12W-K
J8
J6
SW3
SW2
SW1
9-900-996-03
P/N5102400
HC123
HC132
NJM082
J1
J2
RL6
RL5
RL4
J5
J4
J3
HC86
HC08
75175
C6
C5
C4
4C0040
IC3
IC2
IC1
C3
C2
C1
RL3
RL2
RL1
J7
J9
32
30
25
20
15
10
5
1

A – **A SIDE** –


3
2
1
A
B
C
D
E
J103
J104
J101
J105
RL7
R54
A-12W-K
J6
J8
SW3
SW2
SW1
NJM082
HC132
HC123
J1
J2
RL4
RL5
RL6
HC08
HC86
75175
RL1
RL2
RL3
J7
J9
5
10
15
20
25
30
32

A – **B SIDE** –

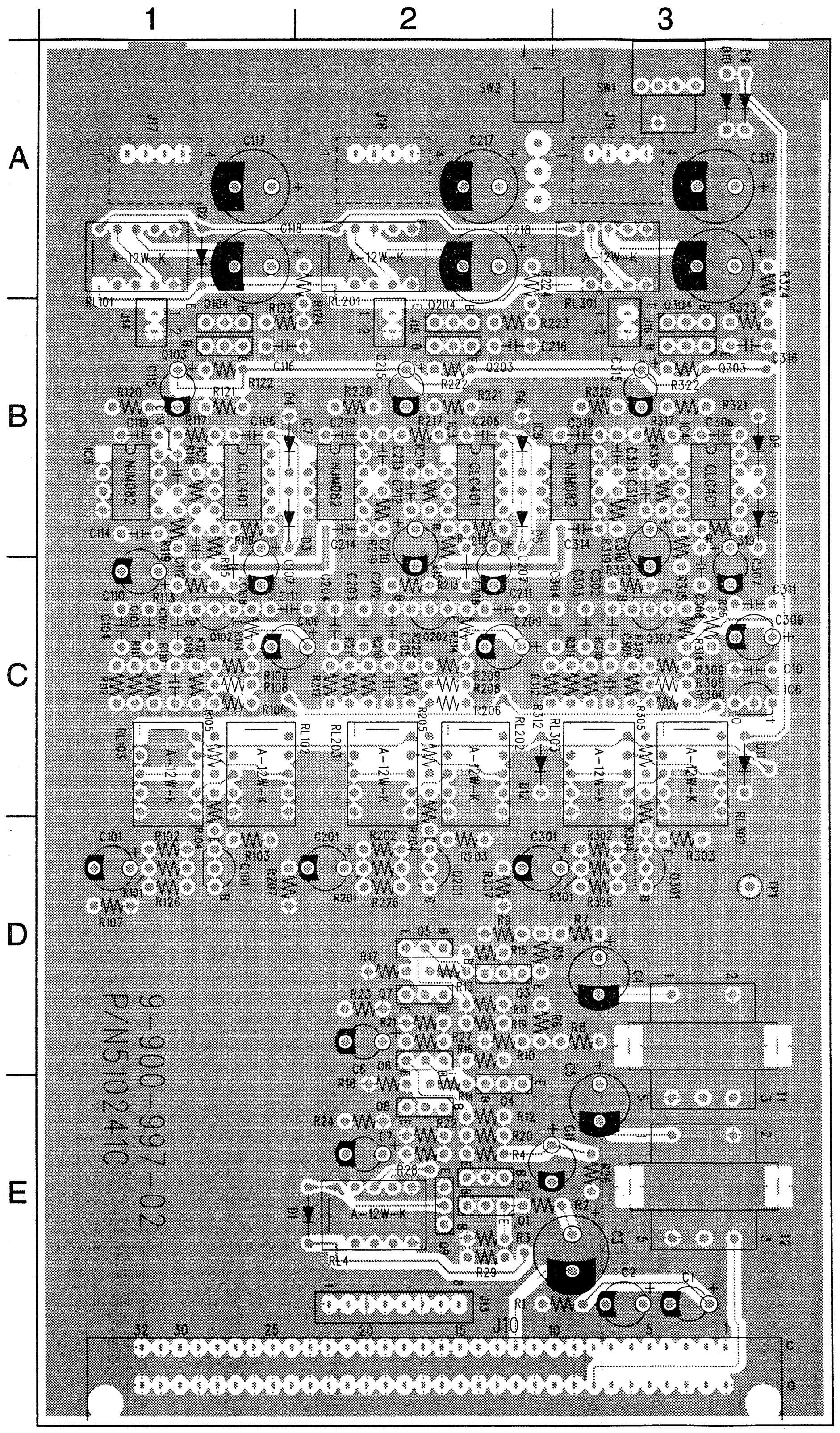

A
(MONITOR OUT)
J9 64P
TO M2 BOARD J9
GND
+5V
+12VA
+9V
AUDIO IN L
SELECT
AUDIO IN R
SEL
HD/CSYNC IN
HD/CSYNC IN-R
1200SEL
HD/CSYNC OUT
VD IN
VD IN-R
S OUT
VD OUT
S IN1
NC
S IN2
+12VB
RGB/VIDEO IN
RGB/VIDEO OUT
CVIDEO/YC IN
CVIDEO/YC OUT
R/CVIDEO
R-Y/R
G/Y
Y/G
B/C
B-Y/B
+12V
+5V
+9V
Q1 2SC2785 CLAMP
Q2 2SC2785 CLAMP
Q18 2SC2785
IC6 SN75175 SYNC SW
IC9 (1/4) 74HC08 HD/VD BUFFER
IC10 (1/4) 74HC86 HD/VD BUFFER
IC9 (3/4) 74HC08 HD/VD BUFFER
IC10 (4/4) 74HC86 HD/VD BUFFER
IC9 (2/4) 74HC08 HD/VD BUFFER
IC10 (2/4) 74HC86 HD/VD BUFFER
IC9 (4/4) 74HC08 HD/VD BUFFER
IC10 (3/4) 74HC86 HD/VD BUFFER
IC14 SN75453BP SYNC BUFF
SW1 SSJ-022M
THROUGH
COMP
IC8 (1/2) NJM082D
IC8 (2/2) NJM082D PULSE GENERATOR
Q3 2SA1175 BUFF
IC7 74HC123 PULSE GENERATOR
IC11 (3/4) 74HC132 NAND
IC11 (4/4) 74HC132 NAND
IC12 PST523D RESET
IC11 (2/4) 74HC132 INV
IC11 (1/4) 74HC132 AUDIO MUTE
Q19 2SC2785 AUDIO SW
Q22 2SC2785 RELAY DRIVE
Q6 2SC2120 CLAMP
Q7 2SA950 VD BUFF
Q4 2SA1175 VD BUFF
Q8 2SC2120 CLAMP
Q9 2SA950 HD BUFF
Q5 2SA1175 HD BUFF
SW2 SSJ-022M
2Vp-p
1Vp-p
SW3 SSJ-022M
TTL
ANALOG
J2 B4B-EH
J109 VD
J110 SYNC/HD
J105
S.SW
S.OUT
S.IN2
S.IN1
CONTROL S IN/OUT
D24 RD5.6ESB
Q10 2SC2785 CLAMP
Q13 2SC2785 CLAMP
Q11 2SA1175 HD BUFF
Q12 2SA1175 HD BUFF
Q14 2SA1175 VD BUFF
Q15 2SA1175 VD BUFF
Q20 2SC2785 VIDEO SW
Q21 2SC2120 RELAY DRIVE
RL7 A-12W-K
D16 1S1588
J104 R
J103 L
AUDIO
J7 8P-SCN
J8 8P-SCN
IC1 4C0040E VIDEO BUFF
IC2 4C0040E VIDEO BUFF
IC3 4C0040E VIDEO BUFF
IN
VCC
GND
OUT
VEE
RL1 A-12W-K
RL2 A-12W-K
RL3 A-12W-K
RL4 A-12W-K
RL5 A-12W-K
RL6 A-12W-K
J3 B4B-EM
J4 B4B-EM
J5 B4B-EM
J1 B12B-EH
J6 B4B-EH
J101 Y/C
J106 R
J107 G
J108 B
J102 VIDEO
Q16 2SC2785 VIDEO SW
Q17 2SC2120 RELAY DRIVE
B-SS2142<AEP>-A..
1
2
3
4
5
A
B
C
D
E
F
G
H

PC-1271M

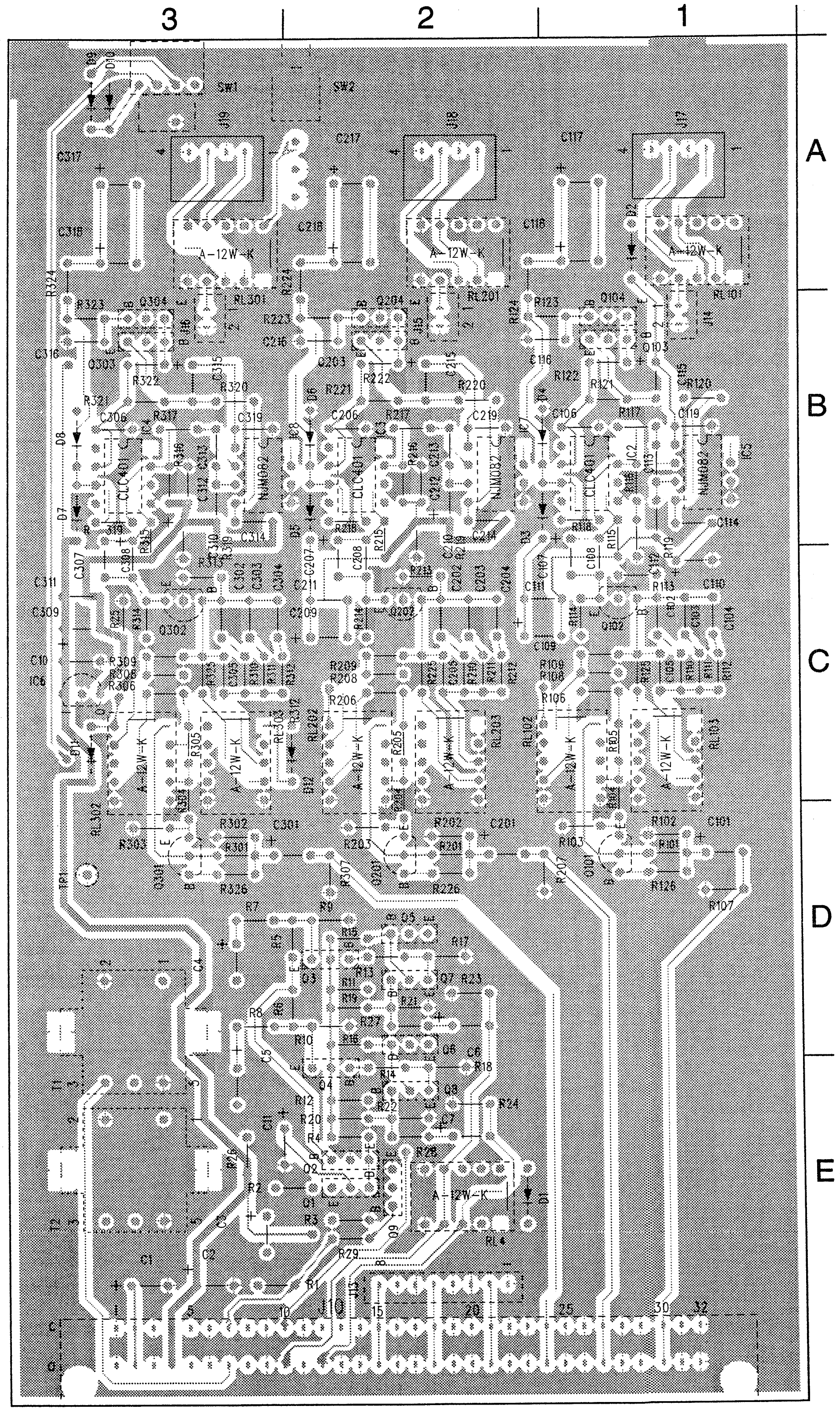
N N

N BOARD

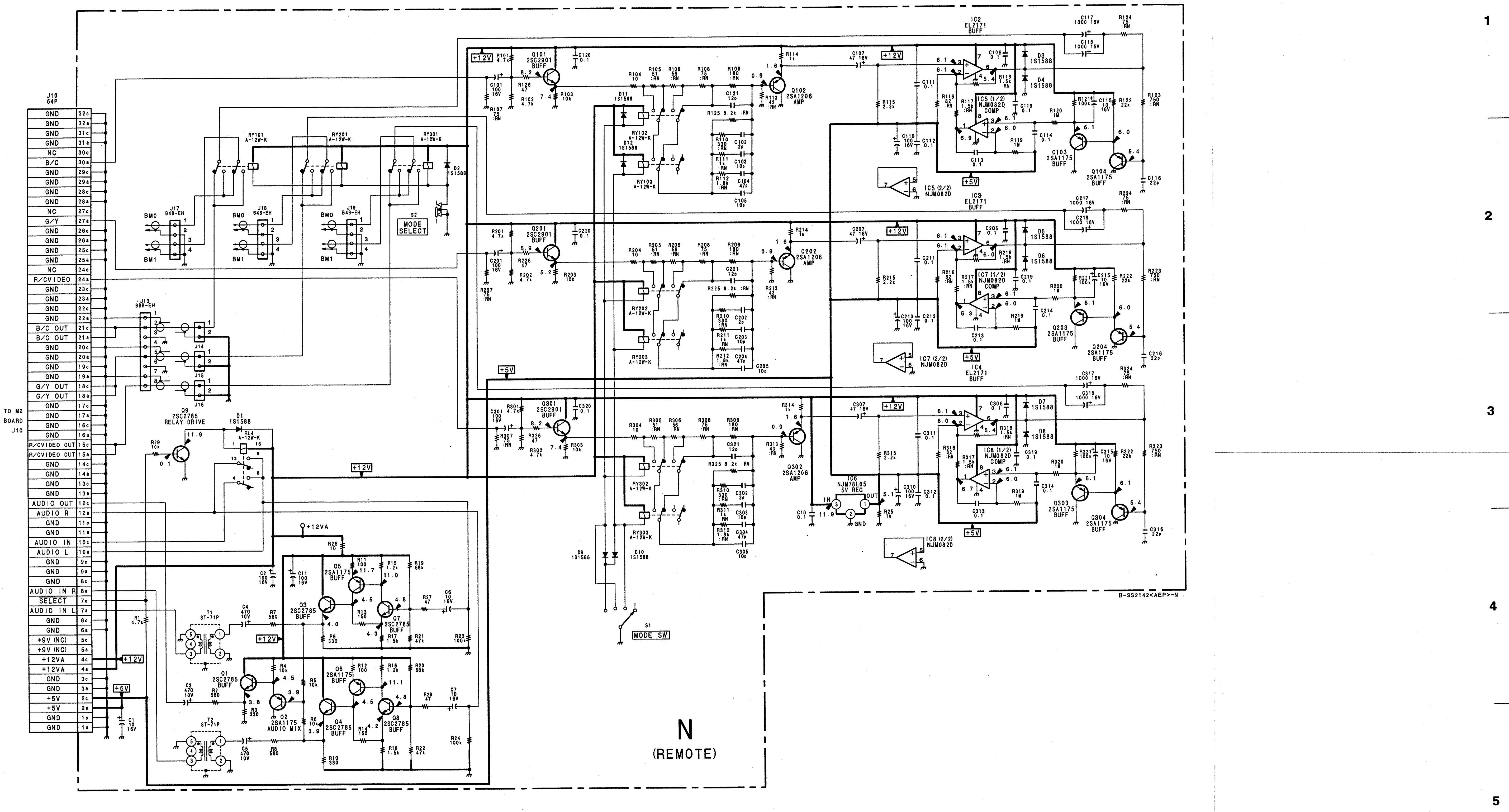
D1	E-2
D2	A-1
D3	B-1
D4	B-1
D5	B-2
D6	B-2
D7	B-3
D8	B-3
D9	A-3
D10	A-3
D11	C-3
D12	C-2
IC2	B-1
IC3	B-2
IC4	B-3
IC5	B-1
IC6	C-3
IC7	B-2
IC8	B-3
Q1	E-2
Q2	E-2
Q3	D-2
Q4	E-2
Q5	D-2
Q6	D-2
Q7	D-2
Q8	E-2
Q9	E-2
Q101	D-1
Q102	C-1
Q103	B-1
Q104	B-1
Q201	D-2
Q202	C-2
Q203	B-2
Q204	B-2
Q301	D-3
Q302	C-3
Q303	B-3
Q304	B-3


1
2
3
A
B
C
D
E
9-900-997-02
P/N5102410

N - A SIDE -



N - B SIDE -


J10
64P
TO M2
BOARD
J10
GND
NC
B/C
G/Y
R/CVIDEO
B/C OUT
G/Y OUT
R/CVIDEO OUT
AUDIO OUT
AUDIO R
AUDIO IN
AUDIO L
AUDIO IN R
SELECT
AUDIO IN L
+9V (NC)
+12VA
+5V
RY101
A-12W-K
RY201
A-12W-K
RY301
A-12W-K
J17
B4B-EH
J18
B4B-EH
J19
B4B-EH
BMO
BM1
S2
MODE
SELECT
D2
1S1588
J13
B8B-EH
J14
J15
J16
Q9
2SC2785
RELAY DRIVE
D1
1S1588
RL4
A-12W-K
+12V
+12VA
+5V
Q101
2SC2901
BUFF
Q201
2SC2901
BUFF
Q301
2SC2901
BUFF
Q102
2SA1206
AMP
Q202
2SA1206
AMP
Q302
2SA1206
AMP
RY102
A-12W-K
RY103
A-12W-K
RY202
A-12W-K
RY203
A-12W-K
RY302
A-12W-K
RY303
A-12W-K
D11
1S1588
D12
1S1588
D9
1S1588
D10
1S1588
IC2
EL2171
BUFF
IC3
EL2171
BUFF
IC4
EL2171
BUFF
IC5 (1/2)
NJM082D
COMP
IC5 (2/2)
NJM082D
IC7 (1/2)
NJM082D
COMP
IC7 (2/2)
NJM082D
IC8 (1/2)
NJM082D
COMP
IC8 (2/2)
NJM082D
IC6
NJM78L05
5V REG
IN
OUT
GND
Q103
2SA1175
BUFF
Q104
2SA1175
BUFF
Q203
2SA1175
BUFF
Q204
2SA1175
BUFF
Q303
2SA1175
BUFF
Q304
2SA1175
BUFF
D3
1S1588
D4
1S1588
D5
1S1588
D6
1S1588
D7
1S1588
D8
1S1588
T1
ST-71P
T2
ST-71P
Q1
2SC2785
BUFF
Q2
2SA1175
AUDIO MIX
Q3
2SC2785
BUFF
Q4
2SC2785
BUFF
Q5
2SA1175
BUFF
Q6
2SA1175
BUFF
Q7
2SC2785
BUFF
Q8
2SC2785
BUFF
S1
MODE SW
N
(REMOTE)
B-SS2142<AEP>-N
1
2
3
4
5
A
B
C
D
E
F
G
H